

Master Minimum Equipment List (MMEL)

Revision: 20a Date: 11/05/2014

BOEING 777

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MASTER MINIMUM EQUIPMENT LIST

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(BOEING B-777)

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80 Starting	80-1	18b	06/13/2012

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Highlights of Change

EFFECTIVE ABOVE DATE, the Boeing 777 Master Minimum Equipment List has been revised. The changes in this interim revision were made to adjust nomenclature and increase dispatch flexibility. All changes are reflected in the highlights of change listed below and are indicated by revision bars in the associated ATA section. For any change affecting an ATA section, all pages in that associated ATA section are re-dated accordingly, with the exception of nomenclature changes for ATA chapter headings.

ATA 21 AIR CONDITIONING

Item -73-01: Revised FAR to 14 CFR.

ATA 23 COMMUNICATIONS

Item -11-01: Revised FAR to 14 CFR.

Item -12-01: Revised FAR to 14 CFR.

Item -24-02: Revised FAR to 14 CFR.

Item -51-04: Revised FAR to 14 CFR.

ATA 25 EQUIPMENT/FURNISHINGS

Item -18-01: Revised FAR to 14 CFR.

Item -25-02: Revised FAR to 14 CFR and modified Note 1 in first entry.

Item -63-03: Revised FAR to 14 CFR.

Item -64-03: Revised FAR to 14 CFR.

ATA 26 FIRE PROTECTION

Item -26-01: Revised FAR to 14 CFR.

ATA 31 INDICATING/RECORDING SYSTEMS

Item -31-01: Revised FAR to 14 CFR.

ATA 34 NAVIGATION

Item -31-01: Revised FAR to 14 CFR.

Item -31-02: Revised FAR to 14 CFR.

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Item -31-03: Revised FAR to 14 CFR.

Item -43-01: Revised FAR to 14 CFR.

Item -46-01: Revised FAR to 14 CFR.

Item -51-01: Revised FAR to 14 CFR.

Item -53-01: Revised FAR to 14 CFR.

Item -55-01: Revised FAR to 14 CFR.

Item -57-01: Revised FAR to 14 CFR.

ATA 35 OXYGEN

Item -21-01: Revised FAR to 14 CFR, and standardized nomenclature in proviso c).

Item -21-02: Revised FAR to 14 CFR, added provisos to first entry and added dispatch option.

Item -31-01: Revised FAR to 14 CFR.

Item -31-02: Revised FAR to 14 CFR.

ATA 46 INFORMATION SYSTEMS

Item -11-01: Changed item name.

ATA 52 DOORS

Item -55-01: Revised FAR to 14 CFR.

Item -51-02: Revised FAR to 14 CFR.

Item -51-03: Revised FAR to 14 CFR.

Item -51-04: Revised FAR to 14 CFR.

Item -51-05: Revised FAR to 14 CFR.

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Definitions

The Definitions are as published in FAA Policy Letter 25.

Preamble

The Preamble is as published in FAA Policy Letter 34.

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FEDERAL AVIATION ADMIN	ISTRATI	ON		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:			REVISION NO: 20a PAGE:	
BOEING	B-777			DATE: 11/05/2014 21-1
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
-00-01 Environmental Control System Miscellaneous Cards (ECSMC)				
-00-01-01				
Passenger	С	2	1	 (M)(O) One may be inoperative provided: a) Associated ECSMC is deactivated, b) Both ARINC Signal Gateway cards in the opposite cardfile operate normally, c) Opposite equipment cooling controller operates normally, d) Opposite equipment cooling supply fan operates normally, e) Opposite lavatory/galley fan operates normally, f) One pack operates normally, and g) For FCAC installed and right ECSMC inoperative, FCAC remains OFF.
-00-01-02 777F	С	2	1	 (M) One may be inoperative provided: a) Associated ECSMC is deactivated, b) Both ARINC Signal Gateway cards in the opposite cardfile operate normally, c) Opposite equipment cooling controller operates normally, d) Opposite equipment cooling supply fan operates normally, e) Opposite lavatory/galley fan operates normally, f) One pack operates normally, and g) Both engine bleed systems operate normally.
-24-01 Gasper Fan *** (Passenger)	D	1	0	(M) May be inoperative deactivated.

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SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	:NO				4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-25-01	Recirculation Fans				
-25-01-0					
	Passenger	С	4	0	(M)(O) May be inoperative provided associated recirculation fan is deactivated.
-25-01-0					
	777F	С	2	0	(M)(O) May be inoperative provided: a) Associated recirculation fan is deactivated, and b) Poth angine blood evetems energie.
					b) Both engine bleed systems operate normally.
-26-01	Lavatory/Galley Ventilation Fans	С	2	1	(M) One may be inoperative deactivated provided the opposite ECSMC operates normally.
-26-02 ***	Chiller Boost Fan (Passenger)	С	1	0	(M) May be inoperative deactivated.
-26-03	Bulk Cargo Ventilation Fan				
-26-03-0)1				
	With Chiller Boost Fan Installed	С	1	0	(M) May be inoperative provided:a) Bulk cargo ventilation fan is deactivated, and
					b) Chiller boost fan is deactivated.
-26-03-0)2				
	Without Chiller Boost Fan Installed	С	1	0	(M) May be inoperative provided bulk cargo ventilation fan is deactivated.
-26-04 ***	Cabin Smoking Area Ventilation Exhaust Valves	D	-	0	(M) May be inoperative deactivated closed.

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SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	KS				4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-26-05 ***	Forward Cargo Air Conditioning (FCAC) Exhaust Fan				
-26-05A		С	1	0	(M) May be inoperative deactivated.
-26-05B		D	1	0	(M) May be inoperative deactivated provided FCAC remains off.
-26-06	DELETED (Chiller Exhaust System)				Revision 18 deleted item.
-26-07	Lavatory/Galley Ventilation Shutoff Valve (777F)	С	1	0	(M) May be inoperative provided: a) Valve is deactivated open, and b) Flight is conducted pressurized.
-26-08	Alternate Ventilation System Fan (777F)	С	1	0	(M) May be inoperative provided: a) Fan is deactivated, and b) Flight is conducted pressurized.
-26-09	Alternate Ventilation System Shutoff Valves (777F)	С	2	0	(M) May be inoperative provided: a) Associated valve is deactivated closed, and b) Flight is conducted pressurized.
-26-10	Alternate Ventilation System ALTN VENT Switch (777F)	С	1	0	May be inoperative provided flight is conducted pressurized.
-27-01	Equipment Cooling Air Filter	С	1	0	(M) May be operated with filter removed.
-27-02	Equipment Cooling Supply Fans	С	2	1	 (M) One may be inoperative deactivated provided: a) Opposite ECSMC operates normally, b) Both override valve motors operate normally, c) Both equipment cooling controllers operate normally, and d) Flight is conducted pressurized.

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SYSTEM	л &	1.	2.	NUME	BER INSTALLED
SEQUE! NUMBE	NCE ITEM	ITEM			NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-27-03	Equipment Cooling Override Valve Motors	С	2	1	 (M) One may be inoperative deactivated provided: a) Both equipment cooling supply fans operate normally, and b) Both equipment cooling controllers operate normally.
-27-04	Equipment Cooling Low Flow Sensors				
-27-04-0	01				
	Passenger	С	2	1	(M) One may be inoperative deactivated.
-27-04-0	02 777F				
-27-04-0					
	Main Equipment Center Low Flow Sensor	С	1	0	(M) May be inoperative provided:a) Sensor is deactivated, andb) Flight deck low flow sensor operates normally.
-27-04-0					
	Flight Deck Low Flow Sensor	С	1	0	 (M) May be inoperative provided: a) Sensor is deactivated, b) Main equipment center low flow sensor operates normally, and c) Equipment cooling three-way valve is considered inoperative.
-27-05	Equipment Cooling Vent Fan	С	1	0	(M) May be inoperative provided: a) Fan is deactivated, and b) For ground operations with OAT 30 degrees C or higher, both packs are selected on or airplane is supplied with conditioned air.

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			I		DATE: 11/05/2014 21-5
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SEQUE NUMBE	NCE			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-27-06	Equipment Cooling Vent Valve				
-27-06-0)1				
	Passenger	С	1	0	 (M) May be inoperative provided: a) Valve is deactivated closed, b) Equipment cooling vent fan is deactivated, c) For ground operations with OAT 30 degrees C or higher, both packs are selected on or airplane is supplied with conditioned air, and d) For FCAC installed, FCAC exhaust fan is deactivated.
-27-06-0)2				
	777F	С	1	0	 (M) May be inoperative provided: a) Valve is deactivated closed, b) FCAC exhaust fan is deactivated, and c) For ground operations with OAT 30 degrees C or higher, both packs are selected on or airplane is supplied with conditioned air.
-27-07	Forward Cargo Heat Valve	С	1	0	(M) May be inoperative deactivated closed.
-27-08	Equipment Cooling Controllers	С	2	1	Left controller may be inoperative provided: a) Right equipment cooling supply fan operates normally, b) Right ECSMC operates normally, c) Both override valve motors operate normally, and d) Flight deck low flow detector operates normally.

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SEQUENCE TIEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
-27-09 SATCOM Backup *** Cooling Fans (Passenger)				
-27-09A	С	-	0	(M) May be inoperative deactivated provided both lavatory/galley ventilation fans operate normally.
-27-09B	С	-	0	 (M)(O) May be inoperative deactivated provided: a) SATCOM remains off, b) Alternate procedures are established and used, and c) Flight remains within 180 minutes of landing at a suitable airport.
-27-09C	D	-	0	(M) May be inoperative deactivated provided procedures do not require the use of SATCOM.
-27-10 In-Flight *** Entertainment System (IFES) Equipment Cooling Fan	1			
-27-10-01			_	
All	D	-	0	(M) May be inoperative provided IFES is deactivated.
-27-10-02				
STC ST02657NY-D	С	2	1	(M)(O) May be inoperative provided: a) Inoperative fan is deactivated, and b) Remaining fan is verified to operate normally once each flight day.

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SEQUE! NUMBE	NCE			3.	NUMBER REQUIRED FOR DISPATCH			
21 AIR	CONDITIONING		-		4. REMARKS OR EXCEPTIONS			
21 7010	CONDITIONING							
-27-11 ***	In-Flight Entertainment System (IFES) Equipment Cooling Smoke Detector							
-27-11A		D	2	1				
-27-11B		D	-	0	(M) May be inoperative provided IFES is deactivated.			
-27-12	Equipment Cooling Duct Pressure Sensors	С	4	0	May be inoperative provided both equipment cooling low flow sensors operate normally.			
-27-13 ***	Equipment Cooling Divert Valve	С	1	0	 (M) May be inoperative provided: a) Valve is deactivated closed, b) Equipment cooling vent fan is deactivated, and c) For ground operations with OAT 30 degrees C or higher, both packs are selected on or airplane is supplied with conditioned air. 			
-27-14 ***	Equipment Cooling Inboard Valve							
-27-14-0 ***	1 Passenger	С	1	(M) May be inoperative provided: a) Valve is deactivated closed, b) Equipment cooling vent fan is deactivated, and c) For ground operations with OAT 30 degrees C or higher, both packs are selected on or airplane is supplied with conditioned air. (Continued)				

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S				4. REMARKS OR EXCEPTIONS
ONDITIONING				
Equipment Cooling nboard Valve (Cont'd)				
777F	С	1	0	 (M) May be inoperative provided: a) Valve is deactivated closed, and b) For ground operations with OAT 30 degrees C or higher, both packs are selected on or airplane is supplied with conditioned air.
Equipment Cooling Three-Way Valve (777F)				
Without PRR 62273 or Production Equivalent ncorporated	С	1	0	(M)(O) May be inoperative provided: a) Valve is deactivated closed, and b) Procedures are established and used to verify main deck cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits.
				NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.
With PRR 62273 or Production Equivalent ncorporated	С	1	0	(M)(O) May be inoperative provided: a) Valve is deactivated open, and b) Both packs are operated continuously while valve is deactivated open.
	AVIATION ADMINIST F: BOEING B-7 BOEING B	AVIATION ADMINISTRATION BOEING B-777 1. TEM CONDITIONING Equipment Cooling inboard Valve Cont'd) TYTE Cont'd) Contide the cooling incomposition of the co	AVIATION ADMINISTRATION T: BOEING B-777 1. 2. CE ITEM CONDITIONING Equipment Cooling inboard Valve Cont'd) TTF C 1 Equipment Cooling Three-Way Valve 777F) Without PRR 62273 C 1 Or Production Equivalent incorporated With PRR 62273 or C 1	BOEING B-777 B. ITEM CE ITEM CE ITEM CEQUIPMENT Cooling Inboard Valve Cont'd) CONDITIONING CEQUIPMENT Cooling Inboard Valve Cont'd) CONTYPER COOLING CONTYPER 62273 C 1 0 CONTYPER 62273 C 1 0 CONTYPER 62273 OF Production Equivalent Incorporated CONTYPER 62273 OF CONTYPER 6

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NCE			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
CONDITIONING				
Flight Deck Equipment Cooling System (777F)	С	1	0	(M)(O) May be inoperative provided: a) Equipment cooling three-way valve is deactivated closed, and b) Procedures are established and used to verify main deck cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits.
				NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.
Forward Cargo Air Conditioning (FCAC) Shutoff Valve (Passenger)	D	1	0	(M) May be inoperative provided: a) Valve is deactivated closed, and b) FCAC remains OFF.
FCAC Flow Regulating Valve (777F)	С	1	0	(M) May be inoperative provided: a) Valve is deactivated closed, and b) FCAC remains OFF.
ACAC Flow Regulating Valve (777F)	С	1	0	(M) May be inoperative provided: a) Valve is deactivated closed, and b) ACAC is not operated in AUTO.
ACAC Exhaust Shutoff Valve (777F)	С	1	0	(M) May be inoperative provided: a) Valve is deactivated closed, and b) ACAC is not operated in AUTO.
Lower Lobe Attendant Rest (LLAR) Shutoff Valve	С	1	0	(M)(O) May be inoperative provided: a) Valve is deactivated closed, and b) LLAR is deactivated closed.
				NOTE: These provisions are not intended to prohibit LLAR inspections by crewmembers.
	FT: BOEING B-7 A & ITEM RS CONDITIONING Flight Deck Equipment Cooling System (777F) FORWARD (PASSENGER) FCAC Flow Regulating Valve (777F) ACAC Flow Regulating Valve (777F) ACAC Flow Regulating Valve (777F) ACAC Exhaust Shutoff Valve (777F) Lower Lobe Attendant Rest (LLAR) Shutoff	FT: BOEING B-777 A & ITEM RS CONDITIONING Flight Deck C Equipment Cooling System (777F) Forward Cargo Air Conditioning (FCAC) Shutoff Valve (Passenger) FCAC Flow Regulating Valve (777F) ACAC Flow C Regulating Valve (777F) ACAC Exhaust C Shutoff Valve (777F) C C Shutoff Valve (777F) C C C C C C C C C C C C C C C C C C C	Forward Cargo Air Conditioning (FCAC) Shutoff Valve (Passenger) FCAC Flow Regulating Valve (777F) ACAC Flow Regulating Valve (777F) ACAC Exhaust Shutoff Valve (777F) Lower Lobe Attendant C Shutoff Valve (777F) Lower Lobe Attendant C 1 Rest (LLAR) Shutoff	FT: BOEING B-777 A & ITEM

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SEQUE NUMBE	NCE			3.	NUMBER REQUIRED FOR DISPATCH
21 AID	CONDITIONING				4. REMARKS OR EXCEPTIONS
ZI AIN	CONDITIONING				
-29-02 ***	Main Deck Crew Rest (MDCR)/Main Deck Flight Crew Rest (MDFCR) Shutoff Valve	С	1	0	(M) May be inoperative provided: a) Valve is deactivated closed, and b) MDCR/MDFCR is deactivated closed. NOTE: These provisions are not intended to prohibit MDCR/MDFCR inspections by crewmembers.
-29-03 ***	Main Deck Crew Rest (MDCR) Exhaust Valve	С	1	0	 (M) May be inoperative provided: a) Valve is deactivated closed, and b) MDCR is deactivated closed. NOTE: These provisions are not intended to prohibit MDCR inspections by crewmembers.
-29-04 ***	Overhead Flight Crew/Attendant Rest Supply Shutoff Valves (Includes FSI Installation)				
-29-04-0)1				
	Overhead Flight Crew Rest (OFCR)	С	1	0	 (M) May be inoperative provided: a) OFCR supply shutoff valve is deactivated closed, and b) OFCR is deactivated closed. NOTE: These provisions are not intended to prohibit OFCR inspections by crewmembers.
-29-04-0	2				
	Overhead Flight Attendant Rest (OFAR)	С	1	0	 (M) May be inoperative provided: a) OFAR supply shutoff valve is deactivated closed, and b) OFAR is deactivated closed. NOTE: These provisions are not intended to prohibit OFAR inspections by crewmembers.

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SEQUEI NUMBE				3.				
21 AID	CONDITIONING				4. F	EMARKS OR EX	CEPTIONS	
ZI AIIX	CONDITIONING							
-29-05 ***	Overhead Flight Crew/Attendant Rest Exhaust Valves (Includes FSI Installation)							
-29-05-0	1							
	Overhead Flight Crew Rest (OFCR)	С	1	0	a)	y be inoperative OFCR exhaust v closed, and OFCR is deactiv	valve is deactive	vated
					NOTE:	These provisions prohibit OFCR is crewmembers.		ded to
-29-05-0								
	Overhead Flight Attendant Rest (OFAR)	С	1	0	a)	by be inoperative OFAR exhaust v closed, and OFAR is deactiv	valve(s) is dea	ctivated
					NOTE:	These provisions prohibit OFAR in crewmembers.		ded to

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NUMBE	KS				4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-29-06 ***	Overhead Flight Crew Rest Supply Shutoff Valves (Taxi, Takeoff & Landing Installation)	С	2	0	 (M) May be inoperative provided: a) Both valves are deactivated closed, and b) Associated crew rest is deactivated closed. NOTE: These provisions are not intended to prohibit crew rest inspections by crewmembers.
-29-06-0	01				
	Primary	С	1	0	 (M) May be inoperative provided: a) Valve is deactivated closed, b) Left air conditioning pack operates normally, and c) Secondary supply shutoff valve operates normally.
-29-06-0)2				
	Secondary	С	1	0	 (M) May be inoperative provided: a) Valve is deactivated closed, b) Primary supply shutoff valve operates normally, c) Left air conditioning pack operates normally, and d) Crew rest is not occupied below FL 250.
-29-07 ***	Overhead Flight Crew Rest (OFCR) Pressure Sensor (Taxi, Takeoff & Landing Installation)	C	1	0	

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21 AIR	CONDITIONING				4. REMARKS ON EXCELLIBROR		
-31-01	Auto Cabin Pressure Controls (L and R)						
-31-01-0)1						
	Passenger with P/N 3676-GRS-014-00 or Later ASCPC Software Installed						
-31-01-0	01A	С	2	1	(M) One may be inoperative provided: a) Manual cabin pressure control is verified to operate normally on both outflow valves before each departure, and b) Left or right AFDC operates normally.		
-31-01-0	11B	C	2	1	 (M)(O) One may be inoperative provided: a) One outflow valve is deactivated 7% open, b) Manual cabin pressure control is verified to operate normally on the remaining outflow valve, c) Left or right AFDC operates normally, d) One pack operates normally, and the other pack operates normally or in standby cooling mode, e) Both CTCs operate normally, f) Both engine bleed systems operate normally, and g) For OFCR or OFAR installed and aft outflow valve deactivated 7% open, the OFCR or OFAR is deactivated closed. NOTE: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers. (Continued) 		

BOEING B-777 SYSTEM & ITEM BEQUENCE NUMBERS 21 AIR CONDITIONING 31-01 Auto Cabin Pressure Controls (L and R)	2.	NUMI 3.	REVISION NO: 20a PAGE: DATE: 11/05/2014 21-14 BER INSTALLED NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
SYSTEM & ITEM SEQUENCE NUMBERS 21 AIR CONDITIONING 31-01 Auto Cabin Pressure Controls (L and R)	2.		BER INSTALLED NUMBER REQUIRED FOR DISPATCH
SYSTEM & ITEM SEQUENCE NUMBERS 21 AIR CONDITIONING 31-01 Auto Cabin Pressure Controls (L and R)	2.		NUMBER REQUIRED FOR DISPATCH
21 AIR CONDITIONING 31-01 Auto Cabin Pressure Controls (L and R)		3.	·
31-01 Auto Cabin Pressure Controls (L and R)			4. REMARKS OR EXCEPTIONS
Controls (L and R)			
(Cont'd)			
31-01-02			(4) (2)
777F C	2	1	(M) One may be inoperative provided: a) Manual cabin pressure control is verified to operate normally on both outflow valves before each departure, and b) Left or right AFDC operates normally.
31-01-03			
ALL C	2	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, c) For extended overwater flight, manual cabin pressure control is verified to operate normally on both outflow valves, and d) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed.
			NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.
			NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers.

U.S. DEPARTMENT OF TRANSPORT		N	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE: DATE: 11/05/2014 21-15
SYSTEM & ITEM SEQUENCE NUMBERS 21 AIR CONDITIONING -31-02 Manual Cabin Pressure Outflow Valve Controls (FWD and AFT) -31-02-01		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
Passenger C	2	1	 (M)(O) One may be inoperative provided: a) Associated outflow valve is deactivated 7% open, b) Manual cabin pressure control is verified to operate normally on the remaining outflow valve, c) One pack operates normally, and the other pack operates normally or in standby cooling mode, d) Both CTCs operate normally, e) Both engine bleed systems operate normally, and f) For OFCR or OFAR installed and aft outflow valve deactivated 7% open, the OFCR or OFAR is deactivated closed. NOTE: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers. (Continued)

U.S. DEPARTMENT OF TRANSPOR	RTATIC	N	
FEDERAL AVIATION ADMINISTRATION	ΓΙΟΝ		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:
BOLING B-111			DATE: 11/05/2014 21-16
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE ITEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
21 AIR CONDITIONING			4. REMARKS OR EXCEPTIONS
-31-02 Manual Cabin Pressure Outflow Valve Controls (FWD and AFT) (Cont'd)			
-31-02-02 777F			
-31-02-02-01			
With P/N C 3677-GRS-105-00 ASCPC Software Installed	2	1	 (M)(O) One may be inoperative provided: a) Associated outflow valve is deactivated 7% open, b) Manual cabin pressure control is verified to operate normally on the remaining outflow valve, c) One pack operates normally, and the other pack operates normally or in standby cooling mode, d) Both CTCs operate normally, e) Both engine bleed systems operate normally, and f) Rigid cargo barrier doors remain closed inflight.
-31-02-02-02 With P/N C 3674-GRS-106-00 ASCPC or Later Software Installed	2	1	 (M)(O) One may be inoperative provided: a) Associated outflow valve is deactivated 7% open, b) Manual cabin pressure control is verified to operate normally on the remaining outflow valve, c) One pack operates normally, and the other pack operates normally or in standby cooling mode, d) Both CTCs operate normally, and e) Both engine bleed systems operate normally. (Continued)

U.S. DEPARTMENT OF TRANSPOR	TATIC	N	
FEDERAL AVIATION ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE: DATE: 11/05/2014 21-17
SYSTEM & ITEM SEQUENCE NUMBERS	2.	NUMI 3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING			
-31-02 Manual Cabin Pressure Outflow Valve Controls (FWD and AFT) (Cont'd)			
-31-02-03 ALL C	2	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, c) Extended overwater flight is prohibited, and d) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers.

U.S. DEPARTMENT OF TRANSPOR	TATIO	N				
FEDERAL AVIATION ADMINISTRAT	ION			MASTER MININ	MUM EQUI	PMENT LIST
AIRCRAFT: BOEING B-777				REVISION NO: 20	0a	PAGE:
	1			DATE: 11/05/2014		21-18
SYSTEM & ITEM SEQUENCE NUMBERS	2.			FALLED R REQUIRED FOR EMARKS OR EXCE		i
21 AIR CONDITIONING						
-31-03 Outflow Valves (FWD and AFT)						
Passenger Without C P/N 3676-GRS-014-00 or Later ASCPC Software Installed	2	1	a) b) c) d) e) f)	One may be inoperal Valve is deactivated Manual cabin press to operate normally outflow valve, Both auto cabin presoperate normally, One pack operates other pack operates standby cooling more Both CTCs operate Both engine bleed in normally, and For OFCR or OFAR outflow valve deact OFCR or OFAR is of These provisions ar prohibit crew/attend by crewmembers. ued)	d 7% open sure contro v on the ren essure contro normally, as normally, as normally, systems open controlled activated 7% deactivated re not intended.	I is verified naining trols and the or in operate and aft open, the d closed.

U.S. DEPARTMENT OF TRANSPOR		Ν	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777	ION		REVISION NO: 20a PAGE: DATE: 11/05/2014 21-19
SYSTEM & SEQUENCE NUMBERS 21 AIR CONDITIONING -31-03 Outflow Valves (FWD and AFT) (Cont'd) -31-03-02 Passenger With P/N C	2.		NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS (M)(O) One may be inoperative provided:
3676-GRS-014-00 or Later ASCPC Software Installed			 (M)(O) One may be inoperative provided. a) Valve is deactivated 7% open, b) Manual cabin pressure control is verified to operate normally on the remaining outflow valve, c) Left or right auto cabin pressure control operates normally, d) One pack operates normally, and the other pack operates normally or in standby cooling mode, e) Both CTCs operate normally, f) Both engine bleed systems operate normally, and g) For OFCR or OFAR installed and aft outflow valve deactivated 7% open, the OFCR or OFAR is deactivated closed. NOTE: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers. (Continued)

U.S. DEPARTMENT OF TRANSPOR	TATIO	N	
FEDERAL AVIATION ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:			REVISION NO: 20a PAGE:
BOEING B-777			DATE: 11/05/2014 21-20
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE ITEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
21 AIR CONDITIONING			4. REMARKS OR EXCEPTIONS
-31-03 Outflow Valves (FWD and AFT) (Cont'd)			
-31-03-03 777F			
-31-03-03-01 With P/N C 3677-GRS-105-00 ASCPC Software Installed	2	1	 (M)(O) One may be inoperative provided: a) Valve is deactivated 7% open, b) Manual cabin pressure control is verified to operate normally on the remaining outflow valve, c) Left or right auto cabin pressure control operates normally, d) One pack operates normally, and the other pack operates normally or in standby cooling mode, e) Both CTCs operate normally, f) Both engine bleed systems operate normally, and g) Rigid cargo barrier doors remain closed inflight.
-31-03-03-02 With P/N C 3674-GRS-106-00 or Later ASCPC Software Installed	2	1	 (M)(O) One may be inoperative provided: a) Valve is deactivated 7% open, b) Manual cabin pressure control is verified to operate normally on the remaining outflow valve, c) Left or right auto cabin pressure control operates normally, d) One pack operates normally, and the other pack operates normally or in standby cooling mode, e) Both CTCs operate normally, and f) Both engine bleed systems operate normally. (Continued)

J.S. DEPARTMENT OF TRANSPOR FEDERAL AVIATION ADMINISTRAT			MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:			
	1		DATE: 11/05/2014 21-21			
SYSTEM & ITEM SEQUENCE			BER INSTALLED NUMBER REQUIRED FOR DISPATCH			
NUMBERS			4. REMARKS OR EXCEPTIONS			
21 AIR CONDITIONING						
Outflow Valves (FWD and AFT) (Cont'd)						
AII C	2	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, c) Extended overwater flight is prohibited, and d) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers. 			

U.S. DEPARTMENT OF TRANS			N	MASTER MINIMUM EQUIPMENT LIST				
FEDERAL AVIATION ADMINIS AIRCRAFT:	IKAII	ION		REVISION NO: 20a PAGE:				
BOEING B	-777			DATE: 11/05/2014 21-22				
OVOTENA	1.	2.	NUME	BER INSTALLED				
SYSTEM & ITEM SEQUENCE			3. NUMBER REQUIRED FOR DISPATCH					
NUMBERS				4. REMARKS OR EXCEPTIONS				
21 AIR CONDITIONING								
-31-04 Remote Cabin Pressure Sensor	С	1	0	May be inoperative provided both Auto Cabin Pressure Controls operate normally.				
-31-05 Cabin Rate of Climb Indication								
-31-05A	С	1	0	May be inoperative provided both Auto Cabin Pressure Controls operate normally.				
-31-05B	C	1	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, c) For extended overwater flight, manual cabin pressure control is verified to operate normally on both outflow valves, and d) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers. 				

FEDERAL AVIATION ADMINISTRA	TION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:			REVISION NO: 20a PAGE:
BOEING B-777			DATE: 11/05/2014 21-23
SYSTEM & ITEM	2.	NUM	IBER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING			
-31-06 Cabin Differential Pressure Indication			
-31-06A C	1	0	 (O) May be inoperative provided: a) Cabin altitude indication operates normally, and b) A chart is provided to convert cabin altitude to cabin differential pressure.
-31-06B C	1	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, c) For extended overwater flight, manual cabin pressure control is verified to operate normally on both outflow valves, and d) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers.

U.S. DEPARTMENT OF TRANSPOR	TATIO	N	MACTED MINIMUM FOLUDIATIVE LIGHT						
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT:			REVISION NO: 20a PAGE:						
BOEING B-777			DATE: 11/05/2014 21-24						
SYSTEM & JTEM	2.	NUME	BER INSTALLED						
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH						
NUMBERS			4. REMARKS OR EXCEPTIONS						
21 AIR CONDITIONING									
-31-07 Cabin Altitude Indication									
-31-07A C	1	0	 (O) May be inoperative provided: a) Cabin differential pressure indication operates normally, and b) A chart is provided to convert cabin differential pressure to cabin altitude. 						
-31-07B C	1	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, c) For extended overwater flight, manual cabin pressure control is verified to operate normally on both outflow valves, and d) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers. 						
-31-08 Outflow Valve C Position Indications	2	0							

U.S. DEPARTMENT OF TRANS FEDERAL AVIATION ADMINIS			/1 V	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-	777			REVISION NO: 20a PAGE:
		1		DATE: 11/05/2014 21-25
SYSTEM & ITEM SEQUENCE NUMBERS		2.	NUME	BER INSTALLED
			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING			ļ	
-32-01 Positive Pressure Relief Valves				
-32-01A	С	2	1	(M) One may be inoperative deactivated closed.
-32-01B	C	2	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Extended overwater flight is prohibited, c) Both outflow valves are deactivated open, d) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, and e) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers.

MASTER MINIMUM EQUIPMENT LIST REVISION NO: 20a PAGE: DATE: 11/05/2014 21-26				
DATE: 11/05/2014 21-26				
BER INSTALLED				
NUMBER REQUIRED FOR DISPATCH				
4. REMARKS OR EXCEPTIONS				
4. KEMANING ON EAGET HONG				
 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) Extended overwater flight is prohibited, c) Both outflow valves are deactivated open, d) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, and e) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections 				
by crewmembers.				
 (M)(O) May be inoperative provided: a) Inoperative valve is deactivated closed, b) Forward main deck cargo zone trim air modulation valve is deactivated closed, c) Aft main deck cargo shutoff valves 1 and 2 operate normally, d) Forward and aft main deck cargo shutoff valve 3 operate normally, e) Both packs operate normally, and f) Both engine bleed systems operate normally. (Continued) 				

	PARTMENT OF TRANSI AL AVIATION ADMINIST			Ν	MASTER MINIMUM EQUIPMENT LIST				
AIRCRA			REVISION NO: 20a PAGE:						
					DATE: 11/05/2014 21-27				
SEQUE	SYSTEM & ITEM SEQUENCE NUMBERS		2.		NUMBER REQUIRED FOR DISPATCH				
21 AIR	CONDITIONING			4. REMARKS OR EXCEPTIONS					
-40-01	Main Deck Cargo Shutoff Valves (777F) (Cont'd)								
-40-01-0)2								
40 01	Aft Shutoff Valves 1 and 2	С	2	0	 (M)(O) May be inoperative provided: a) Inoperative valve is deactivated closed, b) Aft main deck cargo zone trim air modulation valve is deactivated closed, c) Forward main deck cargo shutoff valves 1 and 2 operate normally, d) Forward and aft main deck cargo shutoff valve 3 operate normally, e) Both packs operate normally, and f) Both engine bleed systems operate normally. 				
-40-01-0)3								
	Forward and Aft Shutoff Valve 3	С	2	0	 (M) May be inoperative provided: a) Inoperative valve is deactivated closed, b) Forward main deck cargo shutoff valves 1 and 2 operate normally, and c) Aft main deck cargo shutoff valves 1 and 2 operate normally. 				
-41-01 ***	Lower Lobe Attendant Rest (LLAR) Electric Heaters	С	2	0					
-41-02 ***	Flight Crew Rest (FCR) Electric Heater Systems	С	-	0					

U.S. DEPARTMENT OF TRANSPORTATION									
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAF	-T:				REVISION NO: 20a PAGE:				
BOEING B-777					DATE: 11/05/2014 21-28				
CVCTEM	0	1.	2.	NUME	BER INSTALLED				
SYSTEM & ITEM SEQUENCE				3.	NUMBER REQUIRED FOR DISPATCH				
NUMBERS					4. REMARKS OR EXCEPTIONS				
21 AIR C	CONDITIONING								
-41-03 ***	Main Deck Crew Rest (MDCR)/Main Deck Flight Crew Rest (MDFCR) Electric Heater System	С	1	0	(M) May be inoperative deactivated.				
-41-03-01	1								
***	Temperature Sensors	С	2	0					
-41-04 ***	Overhead Flight Crew/Attendant Rest Electric Heater Systems (Includes FSI Installation)								
-41-04-01	I								
Overhead Flight Crew C Rest (OFCR) Heater Systems		С	-	0	(M) May be inoperative provided: a) Associated heater system is deactivated, and b) OFCR is deactivated closed.				
					NOTE: These provisions are not intended to prohibit crew rest inspections by crewmembers.				
-41-04-01	I-01								
	Bunk Heater Systems	С	-	0	 (M) May be inoperative provided a) Associated bunk heater system is deactivated, and b) One common area heater system operates normally. 				
-41-04-01	I-02 Common Area Heater System(s)	С	-	0	(M) May be inoperative provided: a) Associated common area heater system(s) is deactivated, and b) Bunk heater system(s) operates normally.				
					(Continued)				

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	BOEING B-	777			DATE: 11/05/2014 21-29		
1.				NUME	BER INSTALLED		
SYSTEM & ITEM SEQUENCE NUMBERS				3.	NUMBER REQUIRED FOR DISPATCH		
					4. REMARKS OR EXCEPTIONS		
21 AIR	CONDITIONING						
-41-04 ***	Overhead Flight Crew/Attendant Rest Electric Heater Systems (Includes FSI Installation) (Cont'd)						
-41-04-0							
	Overhead Flight Attendant Rest (OFAR) Heater Systems						
-41-04-02A C			2	1	(M) One may be inoperative provided associated heater system is deactivated.		
-41-04-02B C		С	2	0	(M) May be inoperative provided: a) Heater systems are deactivated, and b) OFAR is deactivated closed.		
					NOTE: These provisions are not intended to prohibit attendant rest inspections by crewmembers.		
-44-01	Aft Cargo Heat Valves	С	2	0	(M) May be inoperative provided system is deactivated closed.		
-44-02	Aft Cargo Compartment Temperature Sensor	С	1	0	May be inoperative provided system remains off.		
-44-03	Bulk Cargo Heat Valves (Passenger)	С	2	0	(M) May be inoperative provided system is deactivated closed.		
-44-04	Bulk Cargo Compartment Temperature Sensor (Passenger)	С	1	0	May be inoperative provided system remains off.		

	RTMENT OF TRANS			N	MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT:			REVISION NO: 20a PAGE:					
		1.	2.	DATE: 11/05/2014 21-30 NUMBER INSTALLED				
SYSTEM & ITEM SEQUENCE NUMBERS				NUMBER REQUIRED FOR DISPATCH				
21 AIR CONDITIONING					4. REMARKS OR EXCEPTIONS			
	ight Deck Foot eaters	С	2	0	(M) May be inoperative OFF.			
	ight Deck Shoulder eaters	С	2	0	(M) May be inoperative OFF.			
	r Conditioning acks							
(W or Ed	00/-200ER Vithout PRR 61980 Production quivalent corporated)	C	2	1	 (M)(O) One may be inoperative provided: a) Remaining pack operates normally, b) Both engine bleed systems operate normally, c) Both outflow valves operate normally, d) Airplane remains at or below FL 350, e) Flight remains within 60 minutes of landing at a suitable airport, f) Appropriate performance adjustments are applied, g) For FSI OHAR installed, the FSI OHAR is deactivated closed, and h) JAMCO flight deck security door part number XXX 9721-1 is not installed. NOTE: These provisions are not intended to prohibit attendant rest inspections by crewmembers. (Continued) 			

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST									
FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT: BOEING B-777						REVISION NO: 20a	PAGE:		
	BOLING B-1	11				DATE: 11/05/2014	21-31		
SYSTEM	&	1.	2.	NUME	BER IN	STALLED			
SEQUEN	ICE ITEM			3.	NUMBER REQUIRED FOR DISPATCH				
NUMBER					4.	REMARKS OR EXCEPTION	3		
21 AIR C	CONDITIONING								
-51-01	Air Conditioning Packs (Cont'd)								
-51-01-02									
	-300 (Without PRR 61980 or Production Equivalent Incorporated)	C	2	1	e NOTI	Procedures are established verify forward cargo comparemains empty or contains empty cargo handling equi (ballast may be loaded in laway kits, Flight remains within 60 m landing at a suitable airpor	normally, s operate e normally, d and used to artment only ballast, oment JLDs), or fly nutes of t, and djustments which items n the fly away		

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST								
FEDERAL AVIATION ADMINISTRAT	ION			REVISION NO: 20a	DACE.			
AIRCRAFT: BOEING B-777				REVISION NO: 20a	PAGE:			
	1			DATE: 11/05/2014	21-32			
SYSTEM & ITEM	2.	NUMBER INSTALLED						
SEQUENCE NUMBERS		3.	NUMBE	R REQUIRED FOR DISPATC	H			
NOWBERS			4. F	REMARKS OR EXCEPTIONS				
21 AIR CONDITIONING								
-51-01 Air Conditioning Packs (Cont'd)								
-51-01-03								
-200/-200ER/-300 C (With PRR 61980 or Production Equivalent Incorporated)	2	1	a) b) c) d) e)	normally, Both outflow valves operate i	rmally, perate normally, utes of ustments 200, the FSI			
-51-01-04								
-200LR/-300ER C	2	1	a) b) c) d)	Both engine bleed systems of normally, Both outflow valves operate of Flight remains within 60 minulanding at a suitable airport, a Appropriate performance adjurce applied.	rmally, perate normally, utes of and			

U.S. DEPARTMENT OF TRANSPORT		N	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:	ATION		REVISION NO: 20a PAGE:
BOEING B-77	7		DATE: 11/05/2014 21-33
	1. 2.	NIIIMD	BER INSTALLED
SYSTEM & ITEM SEQUENCE	1. 2.		NUMBER REQUIRED FOR DISPATCH
NUMBERS] . [4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING			in item, and on Excellinate
-51-01 Air Conditioning Packs (Cont'd)			
-51-01-05 777F			
-51-01-05A	C 2	1	 (O) One may be inoperative provided: a) Remaining pack operates normally, b) Both engine bleed systems operate normally, c) Both outflow valves operate normally, d) Alternate ventilation system operates normally, e) For left pack inoperative, right CTC operates normally, and f) Appropriate performance adjustments are applied.
-51-01-05B	C 2	1	 (O) One may be inoperative provided: a) Remaining pack operates normally, b) Both engine bleed systems operate normally, c) Both outflow valves operate normally, d) Flight remains within 60 minutes of landing at a suitable airport, e) For left pack inoperative, right CTC operates normally, and f) Appropriate performance adjustments are applied. (Continued)

U.S. DEPARTMENT OF TRANSPORT	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTRATI	ION		MAGTER WINNINGW EQUIT WENT EIGT
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:
	I		DATE: 11/05/2014 21-34
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE TIEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
			4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING			
-51-01 Air Conditioning Packs (Cont'd)			
-51-01-06			
All C	2	0	 (M)(O) May be inoperative provided: a) Flight is conducted unpressurized, b) For extended overwater flight, manual control of both outflow valves is verified to operate normally, c) All recirculation fans operate normally, d) Both ECSMCs operate normally, e) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, f) For LLAR, OFCR, OFAR, FSI OHAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed, g) For FCAC installed, FCAC remains OFF, h) For 777F, equipment cooling three-way valve is deactivated closed, and i) For 777F with ACAC installed, ACAC remains OFF. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers.

	PARTMENT OF TRANS AL AVIATION ADMINIS			N	MASTER MINIMUM EQUIPMENT LIST
AIRCRA					REVISION NO: 20a PAGE:
	BOEING B-	-777			DATE: 11/05/2014 21-35
OVOTE	.4.0	1.	2.	NUME	BER INSTALLED
SEQUE	STEM & ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	RS				4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-51-02	Pack Flow Control/Shutoff Valves (FCVs)				
-51-02-0)1				
	Upper FCVs	С	2	0	(M) May be inoperative locked closed provided associated lower FCV operates normally.
-51-02-0	12				·
31 02 0	Lower FCVs	С	2	1	(M) One may be inoperative locked closed
					provided: a) Opposite pack operates normally, and b) Associated upper FCV operates normally.
-51-03	Pack OFF Lights	С	2	0	
-51-04	Flight Deck Flow Regulating Valve (777F)	С	1	0	(M) May be inoperative provided valve is deactivated open.
-52-01	Air Cycle Machines (ACM)	C	2	1	 (M)(O) One may be inoperative provided: a) Associated second stage turbine bypass valve is locked open, b) Ram air inlet and exit doors operate normally or are secured open, c) Opposite pack operates normally, d) Both engine bleed systems operate normally, and e) Appropriate performance adjustments are applied.

AIRCRA		KAI	ION				
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	BOLING B-7	11	DATE: 11/05/2014 21-36				
SYSTEM & TEM			2.	NUME	BER INSTALLED		
SEQUEI NUMBEI				3.	NUMBER REQUIRED FOR DISPATCH		
21 ΔIR (CONDITIONING		1		4. REMARKS OR EXCEPTIONS		
ZI AIIX	CONDITIONING			 - 			
-52-02	Economy Cooling Valves (ECV)						
-52-02A		С	2	1	 (O) One may be inoperative provided: a) Opposite pack operates normally, b) Both engine bleed systems operate normally, and c) Appropriate performance adjustments are applied. 		
-52-02B		С	2	0	(M) May be inoperative locked closed.		
-52-03	Compressor Discharge Temperature Sensors	С	6	2	(M) May be inoperative provided one sensor per pack is verified to operate normally.		
-52-04	Pack Discharge Temperature Sensors	С	6	2	(M) May be inoperative provided one sensor per pack is verified to operate normally.		
-52-05	Ram Air Inlet Door Systems						
-52-05A		С	2	0	(M)(O) May be inoperative provided: a) Associated door is secured full open, and b) Appropriate performance adjustments are applied.		
-52-05B		С	2	0	(M) May be inoperative closed provided associated pack is not used.		

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BOLINO E	, , , ,			DATE: 11/05/2014 21-37				
SYSTEM &	1.	2.	NUMBER INSTALLED					
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
21 AIR CONDITIONING		-		4. REMARKS OR EXCEPTIONS				
-52-06 Ram Air Exhaust boor Systems								
-200/-200ER/-300/ -300ER								
-52-06-01A	С	2	0	(M) May be inoperative provided associated door is secured full open.				
-52-06-01B	С	2	0	May be inoperative provided associated pack is not used.				
-52-06-02 -200LR and 777F								
-52-06-02A	С	2	0	(M)(O) May be inoperative provided: a) Associated door is secured full open, and b) Appropriate performance adjustments are applied.				
-52-06-02B	С	2	0	May be inoperative provided associated pack is not used.				
-52-07 Condenser Inlet Temperature Control Systems	С	2	1	 (M)(O) One may be inoperative provided: a) Associated condenser low limit valve is locked open, b) Opposite pack operates normally, c) Both engine bleed systems operate normally, and d) Appropriate performance adjustments are applied. 				

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			DATE: 11/05/2014 21-38					
SYSTEM & ITEM	. 2.	NUME	NUMBER INSTALLED					
SEQUENCE TILM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS					
21 AIR CONDITIONING			4. REMARKS OR EXCEPTIONS					
-52-08 Lower Lobe Attendant *** Rest (LLAR) Duct Temperature Sensors								
-52-08A [2	1						
-52-08B	2	0						
-61-01 Cabin Temperature Controllers (CTC)								
-61-01-01 -200/-200ER (Without OPRR 61980 or Production Equivalent Incorporated)	2	1	 (M)(O) One may be inoperative provided: a) Associated pack is not used, b) Opposite pack operates normally, c) Both engine bleed systems operate normally, d) Both outflow valves operate normally, e) Airplane remains at or below FL 350, f) Flight remains within 60 minutes of landing at a suitable airport, g) Appropriate performance adjustments are applied, h) For the right CTC inoperative, electrical power on the right AC Transfer Bus is verified before each departure, and i) For FCAC installed and right CTC inoperative, FCAC remains OFF. (Continued) 					

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BOEING B-777			DAT	ΓΕ: 11/05/20	014	21-39		
1.	2.	NUME	ER INSTAL	LED				
SYSTEM & ITEM SEQUENCE		3.	NUMBER R	EQUIRED F	OR DISPATCH	+		
NUMBERS			4. REM	ARKS OR EX	XCEPTIONS			
21 AIR CONDITIONING								
-61-01 Cabin Temperature Controllers (CTC) (Cont'd)								
-61-01-02			(11)(0) 0					
-300 (Without PRR C 61980 or Production Equivalent Incorporated)	2	1	a) As b) Op c) Bo no d) Bo e) Pro ve rer em (ba aw f) Flii lar g) Ap are h) Fo po ve i) Fo inco NOTE: Op are kits	esociated pace opposite pack of the engine ble rmally, but outflow value ocedures are rify forward omains empty path cargo had last may be reading at a suit oppopriate per eapplied, or the right CT wer on the right CT were on the right CT were on the right CT and which neather the right CT was a poproved for and which neather the right CT which is and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for and which neather the right CT was a poproved for an analysis of the right CT was a poproved for an analysis of the right CT was a poproved for an analysis of the right CT was a poproved for a poproved	perative provional k is not used, operates normal ed systems of a lives operate in a established a argo comparting or contains on andling equipmatable airport, formance adjust the compartment of the comp	ally, perate cormally, and used to ment ally ballast, ent cormally tes of a stments are great er Bus is e, and CTC FF. Thich items he fly away		

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FEDERAL AVIATION ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST					
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:					
BOEING B-777			DATE: 11/05/2014 21-40					
SYSTEM &	2.	NUME	BER INSTALLED					
SEQUENCE ITEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH					
	_		4. REMARKS OR EXCEPTIONS					
21 AIR CONDITIONING								
-61-01 Cabin Temperature Controllers (CTC) (Cont'd)								
-61-01-03								
-200/-200ER/-300 C (With PRR 61980 or Production Equivalent Incorporated)	2	1	 (M)(O) One may be inoperative provided: a) Associated pack is not used, b) Opposite pack operates normally, c) Both engine bleed systems operate normally, d) Both outflow valves operate normally, e) Flight remains within 60 minutes of landing at a suitable airport, f) Appropriate performance adjustments are applied, g) For the right CTC inoperative, electrical power on the right AC Transfer Bus is verified before each departure, and h) For FCAC installed and right CTC inoperative, FCAC remains OFF. 					
-61-01-04 -200LR/-300ER C	2	1	 (M)(O) One may be inoperative provided: a) Associated pack is not used, b) Opposite pack operates normally, c) Both engine bleed systems operate normally, d) Both outflow valves operate normally, e) Flight remains within 60 minutes of landing at a suitable airport, f) Appropriate performance adjustments are applied, g) For the right CTC inoperative, electrical power on the right AC Transfer Bus is verified before each departure, and h) For FCAC installed and right CTC inoperative, FCAC remains OFF. (Continued) 					

U.S. DEPARTMENT OF TRANSPORT	TATION					
FEDERAL AVIATION ADMINISTRATI	ON		MASTER MINIMUM E	EQUIPMENT LIST		
AIRCRAFT: BOEING B-777			REVISION NO: 20a	PAGE:		
BOLING B-777			DATE: 11/05/2014	21-41		
SYSTEM & 1.	2. <u>N</u>	UMBER IN	STALLED			
SEQUENCE ITEM NUMBERS		3. NUMB	ER REQUIRED FOR DISPA	ATCH		
	4. REMARKS OR EXCEPTIONS					
21 AIR CONDITIONING						
-61-01 Cabin Temperature Controllers (CTC) (Cont'd)						
-61-01-05 777F						
-61-01-05-01 Without PRR 62273 or Production Equivalent Incorporated						
-61-01-05-01A C	2	ab c d e f) g h i) k	Left pack operates normal Both engine bleed system normally, Both outflow valves operal Procedures are established verify main deck cargo contains empty cargo handling equipmay be loaded in ULDs), Alternate ventilation system normally, Equipment cooling three-deactivated closed, FCAC remains OFF, Lower forward cargo flow valve is deactivated closed Electrical power on the right Bus is verified before each Appropriate performance are applied, and	ally, as operate ate normally, ed and used to ompartment s only ballast, uipment (ballast or fly away kits, em operates way valve is regulating ed, ght AC Transfer h departure, adjustments r aft cargo flow vated closed.		

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FEDERAL AVIATION ADMINISTRAT	ION	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:		REVISION NO: 20a PAGE:
BOEING B-777		DATE: 11/05/2014 21-42
SYSTEM & ITEM	2. NL	JMBER INSTALLED
SEQUENCE NUMBERS	3	3. NUMBER REQUIRED FOR DISPATCH
		4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING		
-61-01 Cabin Temperature Controllers (CTC) (Cont'd)		
-61-01-05 777F (Cont'd)		
-61-01-05-01 Without PRR 62273 or Production Equivalent Incorporated (Cont'd)		
-61-01-05-01B C	2	1 (M)(O) Right CTC may be inoperative provided: a) Right pack is not used, b) Left pack operates normally, c) Both engine bleed systems operate normally, d) Both outflow valves operate normally, e) Procedures are established and used to verify main deck cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, f) Flight remains within 60 minutes of landing at a suitable airport, g) Equipment cooling three-way valve is deactivated closed, h) FCAC remains OFF, i) Lower forward cargo flow regulating valve is deactivated closed, j) Electrical power on the right AC Transfer Bus is verified before each departure, k) Appropriate performance adjustments are applied, and l) For ACAC installed, lower aft cargo flow regulating valve is deactivated closed. NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.

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BOEING B-777				DATE: 11/05/2014	21-43		
1.	2.	NUME	BER INS	STALLED			
SYSTEM & ITEM SEQUENCE		3.	NUMBER REQUIRED FOR DISPATCH				
NUMBERS			4. REMARKS OR EXCEPTIONS				
21 AIR CONDITIONING							
-61-01 Cabin Temperature Controllers (CTC) (Cont'd)							
-61-01-05 777F (Cont'd)							
-61-01-05-02 With PRR 62273 or Production Equivalent Incorporated							
-61-01-05-02A C	2	1	a)	normally, Both outflow valves opera Alternate ventilation syste normally, FCAC remains OFF, Lower forward cargo flow valve is deactivated close Electrical power on the rig Bus is verified before each Appropriate performance are applied, and For ACAC installed, lower regulating valve is deactive	lly, ns operate Ite normally, om operates regulating d, oth AC Transfer h departure, adjustments raft cargo flow		

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AIRCRAFT: BOEING B-7	77			REVISION NO: 20a PAGE:
BOLING BT				DATE: 11/05/2014 21-44
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING				
-61-01 Cabin Temperature Controllers (CTC) (Cont'd)				
-61-01-05 777F (Cont'd)				
-61-01-05-02 With PRR 62273 or Production Equivalent Incorporated (Cont'd)				
-61-01-05-02B	C	2	1	 (M)(O) Right CTC may be inoperative provided: a) Right pack is not used, b) Left pack operates normally, c) Both engine bleed systems operate normally, d) Both outflow valves operate normally, e) Flight remains within 60 minutes of landing at a suitable airport, f) FCAC remains OFF, g) Lower forward cargo flow regulating valve is deactivated closed, h) Electrical power on the right AC Transfer Bus is verified before each departure, i) Appropriate performance adjustments are applied, and j) For ACAC installed, lower aft cargo flow regulating valve is deactivated closed.
-61-01-05-03 CTC Channels	С	4	2	One may be inoperative in each CTC. (Continued)

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BOEING B-777			DATE: 11/05/2014 21-45
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING		<u> </u>	
-61-01 Cabin Temperature Controllers (CTC) (Cont'd)			
-61-01-06 AII C	2	0	 (M)(O) May be inoperative provided: a) Both packs are not used, b) Flight is conducted unpressurized, c) For extended overwater flight, manual control of both outflow valves is verified to operate normally, d) All recirculation fans operate normally, e) Both ECSMCs operate normally, f) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, g) Electrical power on the right AC Transfer Bus is verified before each departure, h) For LLAR, OFCR, OFAR, MDCR or MDFCR installed, the rest area(s) is deactivated closed, i) For FCAC installed, FCAC remains OFF, j) For 777F, equipment cooling three-way valve is deactivated closed, and k) For 777F with ACAC installed, ACAC remains OFF. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit crew/attendant rest inspections by crewmembers.

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AL AVIATION ADMINIST	RATI	ON		
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1 <i>8</i> .	1.	2.	NUME	BER INSTALLED
NCE			3.	NUMBER REQUIRED FOR DISPATCH
RS				4. REMARKS OR EXCEPTIONS
CONDITIONING				
Flight Deck Zone Temperature Control System				
1				
Passenger	С	1	0	May be inoperative provided left trim air switch remains off.
1-01				
AUTO Mode	С	1	0	(M) May be inoperative provided MAN control mode is verified to operate normally.
2 777F				
2-01				
AUTO Mode	С	1	0	(M) May be inoperative provided MAN control mode is verified to operate normally.
Cabin Zone Temperature Control Systems (Passenger)				
	С	6	0	(M) May be inoperative provided associated zone trim air modulation valve is deactivated closed.
	С	6	0	(O) May be inoperative with the associated zone trim air modulation valve in any position provided: a) Associated trim air switch remains off, and b) For FCAC installed and right trim air switch selected off, FCAC remains OFF.
Cabin Temperature Control (Passenger)	С	1	0	
	AL AVIATION ADMINIST IFT: BOEING B-7 I & ITEM RS CONDITIONING Flight Deck Zone Temperature Control System 11 Passenger 11-01 AUTO Mode 12 777F 12-01 AUTO Mode Cabin Zone Temperature Control Systems (Passenger)	AL AVIATION ADMINISTRATION FT: BOEING B-777 1. A & ITEM RS CONDITIONING Flight Deck Zone Temperature Control System 1. Passenger C 2. 777F 2-01 AUTO Mode C Cabin Zone Temperature Control Systems (Passenger) C Cabin Zone Temperature Control Systems (Passenger) C Cabin Zone Temperature Control Systems (Passenger)	AL AVIATION ADMINISTRATION IFT: BOEING B-777 I. 2. I. & ITEM RS CONDITIONING Flight Deck Zone Temperature Control System II Passenger C 1 II-01 AUTO Mode C 1 Cabin Zone Temperature Control Systems (Passenger) C 6 C 6 Cabin Temperature C 1	BOEING B-777 A & ITEM RS CONDITIONING Flight Deck Zone Temperature Control System 11 Passenger C 1 0 11-01 AUTO Mode C 1 0 Cabin Zone Temperature Control Systems (Passenger) C 6 0 Cabin Temperature C 1 0

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	BOEIIVO B 7	,,			DATE: 11/05/2014 21-47
SYSTEM	1 &	1.	2.	NUME	BER INSTALLED
SEQUE	NCE			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	KS				4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-61-05 ***	FCAC Duct Temperature Sensing System				
-61-05-0	1				
***	Passenger	D	1	0	(M) May be inoperative provided: a) Forward cargo zone trim air modulation valve is deactivated closed, and b) FCAC remains OFF.
-61-05-0	2				
	777F	С	1	0	(M) May be inoperative provided: a) Lower forward cargo zone trim air modulation valve is deactivated closed, and b) FCAC remains OFF.
-61-06 ***	FCAC Cargo Compartment Temperature Sensing System				
-61-06-0					
***	Passenger	D	1	0	May be inoperative provided FCAC remains OFF.
-61-06-0	2				
	777F	С	1	0	May be inoperative provided FCAC remains OFF.
			Ī		

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AIRCRA				REVISION NO: 20a PAG					
	BOEING B-7	77				DATE: 11/05/2014	21-48		
CVCTC	A 0	1.	2.	NUME	BER INS	TALLED	ı		
SYSTEM SEQUE				3.	NUMBE	R REQUIRED FOR DISPATCH	1		
NUMBEI	RS				4. R	EMARKS OR EXCEPTIONS			
21 AIR (CONDITIONING								
-61-07 ***	FCAC Cargo Zone Trim Air Modulation Valve								
-61-07-0	1								
***	Passenger	D	1	0	a)	y be inoperative provided: Valve is deactivated closed, a FCAC remains OFF.	and		
-61-07-0	2								
	777F	С	1	0	a)	y be inoperative provided: Valve is deactivated closed, a FCAC remains OFF.	ınd		
-61-08 ***	FCAC Cargo Temperature Control								
-61-08-0	1								
***	Passenger	D	1	0	a)	y be inoperative provided: FCAC shutoff valve is deactiv closed, and FCAC remains OFF.	ated		
-61-08-0	2								
	777F	С	1	0		y be inoperative provided: Lower forward cargo flow regroalized is deactivated closed, a FCAC remains OFF.			
-61-09 ***	ACAC Duct Temperature Sensing System (777F)	D	1	0		y be inoperative provided: Lower aft cargo zone trim air valve is deactivated closed, a ACAC remains OFF.			

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SYSTEM	11 - 11	1.	2.		BER INSTALLED
SEQUE NUMBE	NCE			3.	NUMBER REQUIRED FOR DISPATCH
21 AIR	CONDITIONING				4. REMARKS OR EXCEPTIONS
21 7	CONDITIONING		 		
-61-10 ***	ACAC Cargo Compartment Temperature Sensing System (777F)	D	1	0	May be inoperative provided ACAC remains OFF.
-61-11 ***	ACAC Cargo Zone Trim Air Modulation Valve (777F)	D	1	0	(M) May be inoperative provided: a) Valve is deactivated closed, and b) ACAC remains OFF.
-61-12 ***	ACAC Cargo Temperature Control (777F)	D	1	0	(M) May be inoperative provided: a) Lower aft cargo flow regulating valve is deactivated closed, and b) ACAC remains OFF.
-61-13	MDAC Duct Temperature Sensing System (777F)	С	2	0	(M) May be inoperative provided associated main deck cargo zone trim air modulation valve is deactivated closed.
-61-14	MDAC Cargo Compartment Temperature Sensing System (777F)	С	2	0	
-61-15	MDAC Cargo Zone Trim Air Modulation Valves (777F)	С	2	0	(M) May be inoperative provided valve is deactivated closed.
-61-16	MDAC Cargo Temperature Controls (777F)	С	2	0	

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			1			DATE: 11/05/2014	21-50			
SYSTE	M &	1.	2.	. NUMBER INSTALLED						
SEQUE				3.	NUMBE	R REQUIRED FOR DISP	ATCH			
NUMBE	K5				4. R	EMARKS OR EXCEPTION	DNS			
21 AIR	CONDITIONING									
-61-17	Equipment Cooling Duct Temperature Sensing System (777F)									
-61-17-0	01									
	Without PRR 62273 or Production Equivalent Incorporated	С	1	0	(a) (b)	May be inoperative provice Equipment cooling trim a valve is deactivated close Equipment cooling three deactivated closed, and Procedures are establish verify main deck cargo or remains empty or contains empty cargo handling ed (ballast may be loaded in away kits.	air modulation sed, -way valve is ned and used to compartment ns only ballast, quipment			
-61-17-0	n2				NOTE:	Operator MELs must def are approved for inclusion kits and which materials ballast.	n in the fly away			
	With PRR 62273 or Production Equivalent Incorporated	С	1	0	a)	May be inoperative provide Equipment cooling trim a valve is deactivated closs Equipment cooling three deactivated open, and Both packs are operated while three-way valve is open.	air modulation ed, e-way valve is d continuously			

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SYSTE	Л&	1.	2.	NUME	BER INSTALLED
SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	KS				4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
-61-18	Equipment Cooling Trim Air Modulation Valve (777F)				
-61-18-0)1				
	Without PRR 62273 or Production Equivalent Incorporated	С	1	0	 (M)(O) May be inoperative provided: a) Valve is deactivated closed, b) Equipment cooling three-way valve is deactivated closed, and c) Procedures are established and used to verify main deck cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits.
-61-18-0	12				NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.
-01-10-0	With PRR 62273 or Production Equivalent Incorporated	С	1	0	 (M)(O) May be inoperative provided: a) Valve is deactivated closed, b) Equipment cooling three-way valve is deactivated open, and c) Both packs are operated continuously while three-way valve is deactivated open.
-61-19	Supernumerary Duct Temperature Sensing System (777F)	С	1	0	 (M) May be inoperative provided: a) Supernumerary zone trim air modulation valve is deactivated closed, and b) Supernumerary and crew rest areas are not occupied.

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SYSTE		1.	2.		BER INSTALLED
SEQUE NUMBE	NCE			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING		-		4. KEWAKKO OK EXOLI HONO
-61-20	Supernumerary Zone Trim Air Modulation Valve (777F)	С	1	0	(M) May be inoperative provided: a) Valve is deactivated closed, and b) Supernumerary and crew rest areas are not occupied.
-61-21	Supernumerary Temperature Control (777F)	С	1	0	
-62-01	Trim Air Control Systems				
-62-01-0	01 Passenger				
-62-01-0	01A	С	2	1	(O) May be inoperative provided: a) Associated trim air switch remains off, and b) For FCAC installed and right trim air switch selected off, FCAC remains OFF.
-62-01-(01B	С	2	0	(O) May be inoperative provided: a) Both trim air switches remain off, b) Both packs operate normally, and c) For FCAC installed, FCAC remains OFF. (Continued)

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SYSTEM &	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
21 AIR CONDITIONING	-		4. REMARKS OR EXCEPTIONS
21 AIR CONDITIONING			
-62-01 Trim Air Control Systems (Cont'd)			
-62-01-02 777F			
-62-01-02-01 Without PRR 62273 C or Production Equivalent Incorporated	2	1	 (M)(O) Right trim air control system may be inoperative provided: a) Right trim air switch remains off, b) Equipment cooling three-way valve is deactivated closed, c) FCAC remains OFF, and d) Procedures are established and used to verify main deck cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits. NOTE: Operator MELs must define which items
			are approved for inclusion in the fly away kits and which materials can be used as ballast.
-62-01-02-02 With PRR 62273 or C Production Equivalent Incorporated	2	1	 (M)(O) Right trim air control system may be inoperative provided: a) Right trim air switch remains off, b) Equipment cooling three-way valve is deactivated open, c) Both packs are operated continuously while three-way valve is deactivated open, and d) FCAC remains OFF.

777 1.	T	NUMI 3.	REVISION NO: 20a PAGE: DATE: 11/05/2014 21-54 BER INSTALLED NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
	2.		DATE: 11/05/2014 21-54 BER INSTALLED NUMBER REQUIRED FOR DISPATCH
	2.		BER INSTALLED NUMBER REQUIRED FOR DISPATCH
1.	2.		NUMBER REQUIRED FOR DISPATCH
		3.	
			4. REMARKS OR EXCEPTIONS
			1
С	2	1	(M)(O) One may be inoperative provided: a) Associated valve is locked closed, and b) For FCAC installed and right trim air PRSOV locked closed, FCAC remains OFF.
С	2	0	(M)(O) May be inoperative provided: a) Both valves are locked closed, b) Both packs operate normally, and c) For FCAC installed, FCAC remains OFF.
C	2	1	 (M)(O) Right trim air PRSOV may be inoperative provided: a) Right trim air PRSOV is locked closed, b) Equipment cooling three-way valve is deactivated closed, c) FCAC remains OFF, and d) Procedures are established and used to verify main deck cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits. NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. (Continued)
	С	C 2	C 2 0

II Q DE	PARTMENT OF TRANS	DOD:	TATIO	NI	
				IN	MASTER MINIMUM EQUIPMENT LIST
AIRCRA	AL AVIATION ADMINIST	KAII	ON		REVISION NO: 20a PAGE:
AIRCRA	BOEING B-7	777			
			1		DATE: 11/05/2014 21-55
SYSTEM	1&	1.	2.	NUME	BER INSTALLED
SEQUE	NCE			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	KS				4. REMARKS OR EXCEPTIONS
21 AIR	CONDITIONING				
				<u> </u>	
-62-02	Trim Air Pressure				
	Regulating/Shutoff Valves (PRSOVs)				
	(Cont'd)				
-62-02-0	2				
02 02 0	777F				
	(Cont'd)				
-62-02-0	2-02				
	With PRR 62273 or	С	2	1	(M)(O) Right trim air PRSOV may be inoperative
	Production Equivalent Incorporated				provided: a) Right trim air PRSOV is locked closed,
	•				b) Equipment cooling three-way valve is
					deactivated open, c) Both packs are operated continuously
					while three-way valve is deactivated open, and
					d) FCAC remains OFF.
-62-03	Trim Air FAULT	C	2	_	
-02-03	Lights	С	2	0	
74.04		_			(M) March a in an anatire off and the late
-71-01 ***	Flight Deck Humidification	D	1	0	(M) May be inoperative off provided the associated water supply is shutoff.
	System				
-73-01	Ozone Converters				
-					
-73-01-0		0		_	As required by 44 CED
	Passenger	С	2	0	As required by 14 CFR.
-73-01-0	2				
	777F	D	2	0	

FEDERAL AVIATION ADMINISTRA	TION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20 PAGE:
			DATE: 04/14/2014 22-1
SYSTEM & ITEM	. 2.		BER INSTALLED
SEQUENCE TILINI NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
22 AUTOFLIGHT			4. REMARKS OR EXCEPTIONS
ZZ AUTOI LIGITI		ļ ,	
-11-01 Autopilot Flight Director Computers (AFDC)			
-11-01A C	3	2	 (M)(O) One may be inoperative provided: a) Associated AFDC is deactivated, b) Associated AFDC backdrive actuator is deactivated, and c) Approach minimums do not require use of the associated autopilot.
-11-01B C	3	1	 (M)(O) Center and one other AFDC may be inoperative provided: a) Associated AFDC is deactivated, b) For left or right AFDC inoperative, the associated AFDC backdrive actuator is deactivated, c) Radio altimeter associated with the operative AFDC operates normally, d) Both flap/slat control lanes operate normally, e) All warning electronics system channels operate normally, and f) Approach minimums do not require use of the autopilots.
-11-01C B	3	0	 (M)(O) May be inoperative provided: a) All AFDCs are deactivated, b) Both AFDC backdrive actuators are deactivated, c) Approach minimums do not require use of the autopilots, d) Number of flight segments and segment duration is acceptable to flight crew, and e) Enroute operations do not require use of the autopilots.

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U.S. DEPARTMENT OF TRANS			N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINIST	IRATI	ON		DEVICION NO. 00 DAGE.
AIRCRAFT: BOEING B-	777			REVISION NO: 20 PAGE:
		I		DATE: 04/14/2014 22-2
SYSTEM & ITEM	1.	2.	NUME	BER INSTALLED
SEQUENCE THEM NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
22 AUTOFLIGHT				
-11-02 Autopilot Backdrive Actuator Systems				
-11-02A	С	2	1	 (M)(O) One may be inoperative provided: a) Associated AFDC backdrive actuator is deactivated, b) Opposite AFDC operates normally, and c) Approach minimums do not require use of the associated autopilot.
-11-02B	В	2	0	 (M)(O) May be inoperative provided: a) Both AFDC backdrive actuators are deactivated, b) Approach minimums do not require use of the autopilots, c) Number of flight segments and segment duration is acceptable to flight crew, and d) Enroute operations do not require use of the autopilots.
-11-03 Autopilot Mode Control Panel Lanes	С	2	1	
-11-04 Mode Control Panel Windows				
-11-04-01				
Airspeed (IAS - MACH)	С	1	0	May be inoperative provided selected airspeed indications on both PFDs operate normally.
-11-04-02				
Heading (HDG - TRK)	С	1	0	May be inoperative provided selected heading indications on both PFDs operate normally.
-11-04-03	_			
Vertical Speed (V/S - FPA)	С	1	0	May be inoperative provided selected vertical speed indications on both PFDs operate normally.
				(Continued)

U.S. DEPARTMENT OF TRANFEDERAL AVIATION ADMINIS			N	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:	SIKAII	ION		REVISION NO: 20 PAGE:
BOEING E	3-777			
		ı		DATE: 04/14/2014 22-3
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
22 AUTOFLIGHT				
-11-04 Mode Control Panel Windows (Cont'd)				
-11-04-04				
Altitude (ALTITUDE)	С	1	0	May be inoperative provided selected altitude indications on both PFDs operate normally.
-11-04-05				
Window Lighting	В	1	0	May be inoperative provided: a) Selected airspeed indications on both PFDs operate normally, b) Selected heading indications on both PFDs operate normally, c) Selected vertical speed indications on both PFDs operate normally, and d) Selected altitude indications on both PFDs operate normally.
-11-05 Mode Control Panel Selectors				
-11-05-01				
V/S - FPA Selector (DOWN & UP)	С	1	0	
-11-05-02				
BANK LIMIT Selector (AUTO, 5, 10, 15, 20, 25)	С	1	0	
-11-05-03				
Altitude Increment Selector (AUTO, 1000)	С	1	0	(O) May be inoperative provided selector is verified to be in AUTO position.
				(Continued)

U.S. DEP	PARTMENT OF TRANS	POR	ΓΑΤΙΟ	N	MASTER MINIMUM EQUIPMENT LIST		
FEDERA	L AVIATION ADMINIST	RATI	ON		WASTER WINNING WEREN TENTED		
AIRCRAF	TT: BOEING B-7	777			REVISION NO: 20 PAGE:		
	BOEING B-	111			DATE: 04/14/2014 22-4		
SYSTEM	Q	1.	2.	NUME	BER INSTALLED		
SEQUEN	CE			3.	NUMBER REQUIRED FOR DISPATCH		
NUMBER	RS				4. REMARKS OR EXCEPTIONS		
22 AUTC	FLIGHT						
5	Mode Control Panel Selectors Cont'd)						
(Conta)						
	Selector Push Functions						
-11-05-04	l-01						
L	AS - MACH	С	1	0			
-11-05-04	I-02						
ŀ	HDG - TRK SEL	С	1	0			
-11-05-04	I-03						
A	ALTITUDE	С	1	0			
	Mode Control Panel Switches						
-11-06-01	A/P Engage Switches						
-11-06-01	A	С	2	1			
-11-06-01	R	В	2	0	(O) May be inoperative provided:		
-11-00-01	Ь	Ь	2	U	a) Approach minimums do not require use		
					of the autopilots, b) Number of flight segments and segment		
					duration is acceptable to flight crew, and c) Enroute operations do not require use of the autopilots.		
					(Continued)		
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U.S. DEPARTMENT OF TRAI	NSPOR	ΓΑΤΙΟ	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINI	STRATI	ON		MASTER MINIMONI EQUIFMENT EIST
AIRCRAFT:				REVISION NO: 20 PAGE:
BOEING I	3- ///			DATE: 04/14/2014 22-5
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
22 AUTOFLIGHT				
-11-06 Mode Control Panel Switches (Cont'd)				
-11-06-02 Autothrottle Arm Switches (A/T ARM L, R)				
-11-06-02-01 PW and RR				
-11-06-02-01A	С	2	1	 (M)(O) One may be inoperative provided: a) Associated servo motor is deactivated, b) Both thrust levers are manually set for takeoff and go-around thrust, and c) Flight remains within 180 minutes of landing at a suitable airport.
-11-06-02-01B	С	2	0	May be inoperative provided: a) Approach minimums do not require autothrottle use, and b) Flight remains within 180 minutes of landing at a suitable airport.
				(Continued)

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			IN	MASTER MINIMUM EQUIPMENT LIST				
FEDERAL AVIATION ADMINIST AIRCRAFT:	KATI	ON	REVISION NO: 20 PAGE:					
BOEING B-7	777							
	4	0	N II IN 45	DATE: 04/14/2014 22-6				
SYSTEM & ITEM SEQUENCE	1.	2.	NUMBER INSTALLED					
NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
22 AUTOFLIGHT				4. KEMAKKO OK EXOLI HONO				
-11-06 Mode Control Panel Switches (Cont'd)								
-11-06-02 Autothrottle Arm Switches (A/T ARM L, R) (Cont'd)								
-11-06-02-02 GE								
-11-06-02-02A	С	2	1	 (M)(O) One may be inoperative provided: a) Associated servo motor is deactivated, b) EEC normal mode operates normally, c) Both thrust levers are manually set for takeoff and go-around thrust, and d) Flight remains within 180 minutes of landing at a suitable airport. 				
-11-06-02-02B	C	2	0	May be inoperative provided: a) EEC normal mode operates normally, b) Approach minimums do not require autothrottle use, and c) Flight remains within 180 minutes of landing at a suitable airport. (Continued)				

U.S. DEPARTMENT OF TRANSPORTATION							
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION							
AIRCRAFT:				REVISION NO: 20 PAGE:			
BOEING B			DATE: 04/14/2014 22-7				
SYSTEM &	1.	2.	NUME	BER INSTALLED			
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH			
				4. REMARKS OR EXCEPTIONS			
22 AUTOFLIGHT							
-11-06 Mode Control Panel Switches (Cont'd)							
-11-06-03							
A/T Engage Switch							
-11-06-03-01	•						
PW and RR	С	1	0	May be inoperative provided: a) Approach minimums do not require autothrottle use, and b) Flight remains within 180 minutes of landing at a suitable airport.			
-11-06-03-02							
GE	С	1	0	May be inoperative provided: a) EEC normal mode operates normally, b) Approach minimums do not require autothrottle use, and c) Flight remains within 180 minutes of landing at a suitable airport. 			
-11-06-04			_				
F/D Switches	С	2	0	May be inoperative provided approach minimums do not require flight director use.			
-11-06-05							
IAS - MACH Reference Switch	С	1	0	May be inoperative provided IAS is displayed in associated window.			
-11-06-06							
HDG - TRK Reference Switch	С	1	0	May be inoperative provided HDG is displayed in associated window.			
				(Continued)			

U.S. DE	EPARTMENT OF TRANS	SPOR	TATIO	N				
	AL AVIATION ADMINIS				MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT:					REVISION NO: 20 PAGE:			
	BOEING B-	///			DATE: 04/14/2014 22-8			
SYSTE	M &	1.	2.	NUMBER INSTALLED				
SEQUE	ENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH			
					4. REMARKS OR EXCEPTIONS			
22 AU	TOFLIGHT							
-11-06	Mode Control Panel Switches (Cont'd)							
-11-06-	07							
	V/S - FPA Reference Switch	С	1	0				
-11-06-		_		_				
	APP Switch	С	1	0	May be inoperative provided approach minimums do not require use of the autopilot flight director system approach mode.			
-11-06-								
	CLB CON, LNAV, VNAV, FLCH, VS/FPA, Heading/Track HOLD, Altitude HOLD, and LOC Switches	С	8	0	May be inoperative provided enroute operations do not require their use.			
-11-06-	10							
	Arm/Engage Lights	С	11	0	May be inoperative provided the associated mode indications on both PFDs operate normally.			
-11-07	Automatic Landing System (Autoland)	С	1	0	May be inoperative provided approach minimums do not require its use.			
-11-07-		_						
	Triple Channel Autoland (LAND 3)	С	1	0	May be inoperative provided approach minimums do not require its use.			

U.S. DEPARTMENT OF TRANS	PORT	ΓΑΤΙΟ	N					
FEDERAL AVIATION ADMINIST				MASTER MINIMUM EQUIPMENT LIST				
AIRCRAFT:			REVISION NO: 20 PAGE:					
BOEING B-7	777			DATE: 04/14/2014 22-9				
CVCTEM 0	1.	2.	NUME	BER INSTALLED				
SYSTEM & ITEM SEQUENCE			3.	NUMBER REQUIRED FOR DISPATCH				
NUMBERS				4. REMARKS OR EXCEPTIONS				
22 AUTOFLIGHT								
-11-08 Control Wheel Autopilot Disconnect Switches								
-11-08A	С	2	1	One may be inoperative provided: a) Autopilot is not used below 1,500 feet AGL, and b) Approach minimums do not require the use of the autopilot.				
-11-08B	В	2	0	May be inoperative provided: a) Autopilot is not used, b) Approach minimums do not require use of the autopilot, c) Number of flight segments and segment duration is acceptable to flight crew, and d) Enroute operations do not require use of the autopilot.				
-11-09 Takeoff/Go-Around (TO/GA) Switches								
-11-09A	С	2	1	One may be inoperative provided approach minimums do not require its use.				
-11-09B	С	2	0	May be inoperative provided: a) Both thrust levers are operated manually for takeoff and go-around, and b) Autopilot and flight director are not used below 500 feet AGL or MDA, whichever is higher.				
				NOTE: Flight director go-around and windshear guidance are not available with both TO/GA switches inoperative.				
-11-10 Flight Director Systems	С	2	0	May be inoperative provided approach minimums do not require their use.				

U.S. DEPARTMENT OF TRANSPO		NC	MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT: BOEING B-77			REVISION NO: 20 PAGE:			
502.110.577			DATE: 04/14/2014 22-10			
SYSTEM & ITEM	1. 2.	NUMBER INSTALLED				
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH			
22 AUTOFLIGHT			4. REMARKS OR EXCEPTIONS			
-31-01 Autothrottle System						
-31-01-01 PW and RR	2 1	0	May be inoperative provided: a) Approach minimums do not require its use, and b) Flight remains within 180 minutes of landing at a suitable airport.			
			NOTE: Any autothrottle mode which operates normally may be used.			
-31-01-02 GE C	2 1	0	May be inoperative provided: a) EEC normal mode operates normally, b) Approach minimums do not require its use, and c) Flight remains within 180 minutes of landing at a suitable airport. NOTE: Any autothrottle mode which operates normally may be used.			

U.S. DEPARTMENT OF TRANS	POR	ΤΑΤΙΟ	N					
	MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION							
AIRCRAFT:				REVISION NO: 20 PAGE:				
BOEING B-	777			DATE: 04/14/2014 22-11				
SYSTEM &	1.	2.	NUME	BER INSTALLED				
SEQUENCE NUMBERS			3. NUMBER REQUIRED FOR DISPATCH					
				4. REMARKS OR EXCEPTIONS				
22 AUTOFLIGHT								
-31-02 Autothrottle Servo Motors								
-31-02-01 PW and RR								
-31-02-01A	С	2	1	 (M)(O) One may be inoperative provided: a) Associated servo motor is deactivated, b) Both thrust levers are manually set for takeoff and go-around thrust, and c) Flight remains within 180 minutes of landing at a suitable airport. 				
-31-02-01B	С	2	0	 (M)(O) May be inoperative provided: a) Both servo motors are deactivated, b) Approach minimums do not require use of the autothrottles, and c) Flight remains within 180 minutes of landing at a suitable airport. 				
-31-02-02 GE								
-31-02-02A	С	2	1	 (M)(O) One may be inoperative provided: a) EEC normal mode operates normally, b) Associated servo motor is deactivated, c) Both thrust levers are manually set for takeoff and go-around thrust, and d) Flight remains within 180 minutes of landing at a suitable airport. 				
-31-02-02B	С	2	0	 (M)(O) May be inoperative provided: a) EEC normal mode operates normally, b) Both servo motors are deactivated, c) Approach minimums do not require use of the autothrottles, and d) Flight remains within 180 minutes of landing at a suitable airport. 				

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST							
FEDERAL AVIATION ADMINISTRATION							
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BOEING B-7	777			DATE: 04/14/2014 22-12			
SYSTEM &	1.	2.	NUME	BER INSTALLED			
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH			
NUMBERS				4. REMARKS OR EXCEPTIONS			
22 AUTOFLIGHT							
-31-03 Autothrottle Disconnect Switches							
-31-03-01 PW and RR							
-31-03-01A	С	2	1	One may be inoperative provided both A/T ARM switches operate normally.			
-31-03-01B	С	2	0	 May be inoperative provided: a) Autothrottles are not armed, b) Approach minimums do not require use of autothrottles, and c) Flight remains within 180 minutes of landing at a suitable airport. 			
-31-03-02 GE							
-31-03-02A	С	2	1	One may be inoperative provided both A/T ARM switches operate normally.			
-31-03-02B	С	2	0	 May be inoperative provided: a) EEC normal mode operates normally, b) Autothrottles are not armed, c) Approach minimums do not require use of autothrottles, and d) Flight remains within 180 minutes of landing at a suitable airport. 			

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U.S. DEPARTMENT OF TRANSF			IN	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTR AIRCRAFT:	KAII	ON		REVISION NO: 20a PAGE:
BOEING B-77	77			
	, 1		.	DATE: 11/05/2014 23-1
SYSTEM & ITEM	1.	2.		BER INSTALLED
SEQUENCE TIEM NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
23 COMMUNICATIONS				4. REMARKS OR EXCEPTIONS
20 GOMINIONIO/THONG				
-11-01 High Frequency (HF) *** Communication Systems				
-11-01A	D	-	-	Any in excess of those required by 14 CFR may be inoperative.
-11-01B	С		1	 (O) May be inoperative while conducting operations that require two LRCS provided: a) SATCOM voice or data link operates normally, b) Alternate procedures are established and used, c) SATCOM coverage is available over the intended route of flight, and d) If SATCOM voice is to be used over the intended route of flight, SATCOM voice short codes (INMARSAT) or direct dial commercial numbers (IRIDIUM) must be available. If not available, prior coordination with appropriate ATS (FIR) facility is required. NOTE: SATCOM voice is to be used only as a backup to normal HF communications unless otherwise authorized by the appropriate ATS facilities.
-11-01-01 HF Data Link				
-11-01-01A	С	1	0	(O) May be inoperative provided alternate procedures are established and used.
-11-01-01B	D	1	0	May be inoperative provided procedures do not require its use.

U.S. DEPARTMENT OF TRANS	SPOR	TATIO	N	
FEDERAL AVIATION ADMINIS	TRATI	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-	777			REVISION NO: 20a PAGE:
DOLINO D-		,		DATE: 11/05/2014 23-2
SYSTEM & ITEM		2.	1	BER INSTALLED
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				4. REMARKS OR EXCEPTIONS
-12-01 VHF Communications Systems	D	3	-	Any in excess of those required by 14 CFR may be inoperative provided left VHF radio operates normally.
-12-01-01 VHF Data Link				
-12-01-01A	С	1	0	(O) May be inoperative provided alternate procedures are established and used.
-12-01-01B	D	1	0	May be inoperative provided procedures do not require its use.
-15-01 Satellite *** Communication (SATCOM) Systems				
-15-01A	D	2	1	
-15-01B	С	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Flight remains within 180 minutes of landing at a suitable airport.
-15-01C	D	-	0	May be inoperative provided procedures do not require its use.
				(Continued)

U.S. DEPARTMENT OF TRANSPO	RTATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTRA	TION		
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:
	1		DATE: 11/05/2014 23-3
SYSTEM & 1.	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
23 COMMUNICATIONS	_		4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS		ļ	
-15-01 Satellite *** Communication (SATCOM) Systems (Cont'd)			
-15-01-01			
SATCOM Voice Systems			
-15-01-01A C	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Flight remains within 180 minutes of landing at a suitable airport.
-15-01-01B D	-	0	May be inoperative provided procedures do not require its use.
-15-01-02 SATCOM Data Link			
-15-01-02A C	1	0	(O) May be inoperative provided alternate procedures are established and used.
-15-01-02B D	1	0	May be inoperative provided procedures do not require its use.

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AIRCR	AFT: BOEING B-	777			REVISION NO: 20a PAGE:
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SYSTE SEQUE		1.	2.		BER INSTALLED NUMBER REQUIRED FOR DISPATCH
NUMBE				Э.	4. REMARKS OR EXCEPTIONS
23 COI	MMUNICATIONS				
-21-01	Selective Call System (SELCAL)	С	1	0	(O) May be inoperative provided alternate procedures are established and used.
-24-01	Radio Tuning Panels	С	3	2	One may be inoperative provided left radio tuning panel operates normally.
-24-02 ***	Emergency Locator Transmitter (ELT) (Fixed)				
-24-02A	X	Α	-	0	(M) May be inoperative provided:a) System is deactivated, andb) Repairs are made within 90 days.
-24-02E	3	Α	-	0	May be missing provided repairs are made within 90 days.
-24-020		D	-	-	(M) Any in excess of those required by 14 CFR may be inoperative provided system is deactivated.
-24-020)	D	-	-	Any in excess of those required by 14 CFR may be missing.

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FEDERAL AVIATION			MASTER MINIMUM EQUIPMENT LIST					
AIRCRAFT:				REVISION NO: 20a PAGE:				
E	BOEING B-777			DATE: 11/05/2014 23-5				
OVOTENA O	1.	2.	NUME	BER INSTALLED				
SEQUENCE	ITEM		3.	3. NUMBER REQUIRED FOR DISPATCH				
NUMBERS				4. REMARKS OR EXCEPTIONS				
23 COMMUNICATIO	ONS							
-27-01 Data Comm Managemer								
27-01A	С	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Flight remains within 180 minutes of landing at a suitable airport.				
-27-01B	С	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) SATCOM voice operates normally.				
-27-01-01 Automatic D Surveillance Contract (AL Function	-	1	0	(O) May be inoperative provided alternate procedures are established and used.				
-27-02 Flight Deck Communica System (AC Link)								
-27-02A	С	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Flight remains within 180 minutes of landing at a suitable airport.				
-27-02B	С	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) SATCOM voice operates normally.				
-27-02C	D	1	0	May be inoperative provided procedures do not require its use.				
				(Continued)				

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SYSTEM &	1.	2.	NUME	BER INSTALLED				
SEQUENCE NUMBERS			3. NUMBER REQUIRED FOR DISPATCH					
		-		4. REMARKS OR EXCEPTIONS				
23 COMMUNICATIONS		ļ						
-27-02 Flight Deck Communications System (ACARS Data Link) (Cont'd)								
-27-02-01								
ATC Databases								
-27-02-01A	С	2	0	(O) May be inoperative provided alternate procedures are established and used.				
-27-02-01B	D	2	0	May be inoperative provided procedures do not require its use.				
-31-01 Passenger Address System (Passenger)	В	1	0	(O) May be inoperative provided: a) Alternate, normal and emergency procedures, and/or operating restrictions are established and used, and b) Flight attendant chime and call lights operate normally.				
				NOTE: Any passenger address function that operates normally may be used.				
-31-01-01								
Passenger Address Controller Modes	С	2	1	(M) One may be inoperative provided operating controller mode is selected.				
-31-01-02	0			(O) May be in an austine passible of alternate				
Lavatory Speakers	С	-	-	(O) May be inoperative provided alternate procedures are established and used.				
				(Continued)				

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FEDERAL AVIATION ADMINIS	TRAT	ION		MASTER MINIMUM EQUIPMENT LIST					
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DOLINO D				DATE: 11/05/2014 23-7					
SYSTEM &	1.	2.	2. NUMBER INSTALLED						
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH					
				4. REMARKS OR EXCEPTIONS					
23 COMMUNICATIONS									
-31-01 Passenger Address System (Passenger) (Cont'd)									
-31-01-03 Cabin Speakers									
-31-01-03A	С	-	-	(M) May be inoperative provided inoperative speakers are not adjacent to each other.					
-31-01-03B	С	-	-	(M) No passenger seat, cabin attendant seat or crew rest area bunk may be occupied from which passenger address system is not audible and intelligible; seat must be blocked and placarded DO NOT OCCUPY.					
-31-01-04	_								
*** Ambient Noise Sensor (ANS) System	С	-	-	(O) May be inoperative selected off.					
-31-01-05 *** Prerecorded Passenger Announcement System									
-31-01-05A	С	1	0	(O) May be inoperative provided alternate procedures are established and used.					
-31-01-05B	D	1	0	May be inoperative provided procedures do not require its use.					

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		1		DATE: 11/05/2014 23-8
SYSTEM & ITEM	1.	2.	NUME	BER INSTALLED
SEQUENCE THEIVI NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
-31-02 Personnel Address System (777F)				
-31-02A	С	1	0	 (O) May be inoperative provided: a) Alternate, normal and emergency procedures, and/or operating restrictions are established and used, and b) Supernumerary call lights/chimes systems operate normally. NOTE: Any personnel address system function that operates normally may be used.
-31-02B	D	1	0	May be inoperative provided procedures do not require its use.
-39-01 Cabin Area Control Panels (CACP)/Cabin System Control Panels (CSCP) (Passenger)	C	-	1	NOTE: Any CACP/CSCP function that operates normally may be used.

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BOEING B-	777			DATE: 11/05/2014 23-9				
M &	1.	2.	NUME	BER INSTALLED				
NCE			3.	3. NUMBER REQUIRED FOR DISPATCH				
				4. REMARKS OR EXCEPTIONS				
WINDINICATIONS			 					
Service Interphone System								
01 Nose Gear Jack								
01A	С	1	0	 (O) Service interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Nose gear flight interphone jack operates normally, and b) Alternate procedures are established and used. 				
01B	В	1	0	(O) May be inoperative provided alternate procedures are established and used.				
02 Other Than Nose Gear Jacks	D	-	0	May be inoperative provided procedures do not require its use.				
Cabin Interphone Systems (Passenger)								
Plight Deck to Cabin, Cabin to Flight Deck, Functions	В	-	-	 (O) May be inoperative provided: a) Flight deck to cabin and cabin to flight deck interphone functions operate normally on at least fifty percent of the cabin handsets, and b) Alternate communications procedures between affected flight attendants station(s) and flight deck are established and used. NOTE: Any cabin interphone function that operates normally may be used. (Continued) 				
	AL AVIATION ADMINIST AFT: BOEING B- M & ITEM ERS MMUNICATIONS Service Interphone System O1 Nose Gear Jack O1A O1B O2 Other Than Nose Gear Jacks Cabin Interphone Systems (Passenger) O1 Flight Deck to Cabin, Cabin to Flight Deck,	AL AVIATION ADMINISTRAT AFT: BOEING B-777 1. M & ITEM ERS MMUNICATIONS Service Interphone System O1 Nose Gear Jack O1A O1B B O2 Other Than Nose Gear Jacks Cabin Interphone Systems (Passenger) O1 Flight Deck to Cabin, Cabin to Flight Deck,	AL AVIATION ADMINISTRATION AFT: BOEING B-777 M & ITEM ERS MMUNICATIONS Service Interphone System O1 Nose Gear Jack O1A C 1 O1B B 1 O2 Other Than Nose Gear Jacks Cabin Interphone Systems (Passenger) O1 Flight Deck to Cabin, Cabin to Flight Deck,	AL AVIATION ADMINISTRATION AFT: BOEING B-777 M & ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM				

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			1		DATE: 11/05/2014 23-10					
SYSTE		1.	2.	2. NUMBER INSTALLED						
SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH					
					4. REMARKS OR EXCEPTIONS					
23 COI	MMUNICATIONS									
-42-01	Cabin Interphone Systems (Passenger) (Cont'd)									
-42-01-0	02									
	Cabin to Cabin Functions	В	-	-	(O) May be inoperative provided: a) Cabin to cabin interphone functions operate normally on at least fifty percent of the cabin handsets, and b) Alternate communications procedures between affected flight attendants station(s) are established and used.					
					NOTE: Any cabin interphone function that operates normally may be used.					
-42-01-0 ***		В		0	(O) May be insperative provided alternate					
	Flight Deck/Cabin to Crew Rest, Crew	Ь	_		(O) May be inoperative provided alternate procedures are established and used.					
	Rest to Flight Deck/Cabin, Functions				NOTE: Any cabin interphone function that operates normally may be used.					
-42-01-0	04									
	Cabin Interphone Controller Modes	С	2	1	(M) One may be inoperative provided operating controller mode is selected.					
-42-02	Cabin Interphone Alerting Systems (Passenger)									
-42-02-0	01									
	Flight Deck Call System (Lights and EICAS Messages)	В	-	0	NOTE: The flight deck chime must be operative.					
					(Continued)					

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FEDERAL AVIATION ADMINISTRAT AIRCRAFT:	ION	REVISION NO: 20a PAGE:	
BOEING B-777			
	Τ_		DATE: 11/05/2014 23-11
SYSTEM & ITEM	2.		BER INSTALLED
SEQUENCE TEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS	-		4. REWARKS OR EXCEPTIONS
	ļ		
-42-02 Cabin Interphone Alerting Systems (Passenger) (Cont'd)			
-42-02-02			
Flight Attendant Call B Lights	-	0	 (O) May be inoperative provided: a) PA system operates normally, and b) Alternate procedures for contacting flight attendants are established and used.
			NOTE 1: Passenger to attendant call system is considered a Non-Essential Equipment and Furnishings (NEF) item.
			NOTE 2: Any visual alerting system function(s) that operates normally may be used.
-42-02-03			
Flight Attendant B Chime	1	0	(O) May be inoperative provided: a) PA system operates normally, and b) Alternate procedures for contacting flight attendants are established and used.
			NOTE 1: Passenger to attendant call system is considered a Non-Essential Equipment and Furnishings (NEF) item.
			NOTE 2: Any audio alerting system function(s) that operates normally may be used.
			(Continued)

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			1		DATE: 11/05/2014 23-12
SYSTE	M &	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH
INUIVIDE	INO				4. REMARKS OR EXCEPTIONS
23 COI	MMUNICATIONS			<u> </u>	
-42-02	Cabin Interphone Alerting Systems (Passenger) (Cont'd)				
-42-02-0	04				
***	Crew Rest Call Lights/Chimes Systems	В	-	0	(O) May be inoperative provided: a) Associated crew rest cabin interphone handset system operates normally, and b) Alternate procedures for contacting crew rest occupants are established and used.
					NOTE: Any alerting system function that operates normally may be used.
-42-03	Cabin Interphone Handset Systems (Passenger)				
-42-03-0	01 Flight Deck				
-42-03-(D1A	С	1	0	(O) May be inoperative provided: a) Flight deck to cabin communication operates normally, and b) Alternate procedures are established and used.
-42-03-0	01B	D	1	0	May be inoperative provided procedures do not require its use.
					(Continued)

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SYSTE	11 - 11	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	NCE			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
23 CO	MMUNICATIONS				4. REMARKS OR EXCEPTIONS
]		
-42-03	Cabin Interphone Handset Systems (Passenger) (Cont'd)				
-42-03-0					
	Cabin	В	-	-	 (O) May be inoperative provided: a) Fifty percent of cabin handsets operate normally, b) One handset must operate normally at each pair of exit doors, and c) Alternate communications procedures between the affected flight attendant station(s) are established and used.
					NOTE 1: An operative handset at an inoperative flight attendant seat shall not be counted to satisfy the fifty percent requirement.
					NOTE 2: Any handset function that operates normally may be used.
-42-03-0					
***	Crew Rests	С	-	0	(O) May be inoperative provided alternate procedures are established and used.
-43-01	Ground Crew Call System	С	1	0	(O) May be inoperative provided alternate procedures are established and used.

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BOEING B-111			DATE: 11/05/2014 23-14				
SYSTEM & JTEM	. 2.	2. NUMBER INSTALLED					
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH				
			4. REMARKS OR EXCEPTIONS				
23 COMMUNICATIONS							
-45-01 Crew Communication System (777F)							
-45-01-01							
Flight Deck to Supernumerary, Supernumerary to Flight Deck, Functions							
-45-01-01A C	1	0	(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.				
-45-01-01B D	1	0	May be inoperative provided procedures do not require its use.				
-45-01-02 Flight Deck to Crew Rest, Crew Rest to Flight Deck, Functions							
-45-01-02A C	1	0	(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used.				
-45-01-02B D	1	0	May be inoperative provided procedures do not require its use.				

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3-777			DATE: 11/05/2014 23-15
1.	2.	NUME	BER INSTALLED
		3.	NUMBER REQUIRED FOR DISPATCH
			4. REMARKS OR EXCEPTIONS
	l I		
В	1	0	NOTE: The flight deck chime must be operative.
D	1	0	May be inoperative provided supernumerary area and crew rest remain unoccupied.
В	1	0	(O) May be inoperative provided: a) Personnel address system operates normally, and b) Alternate procedures are established and used. NOTE: Any alerting system function that operates normally may be used.
D	1	0	May be inoperative provided supernumerary area remains unoccupied. (Continued)
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U.S. DEPARTMENT OF TRANS			IN	MASTER MINIMUM EQUIPMENT LIST				
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AIRCRAFT: BOEING B-7	777							
				DATE: 11/05/2014 23-16				
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SEQUENCE TILIVI NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH				
23 COMMUNICATIONS				4. REMARKS OR EXCEPTIONS				
25 COMMONICATIONS								
-45-02 Crew Communication Alerting Systems (777F) (Cont'd)								
-45-02-03								
Crew Rest Call Lights/Chimes Systems								
-45-02-03A	В	1	0	(O) May be inoperative provided: a) Personnel address system operates normally, and b) Alternate procedures are established and used.				
				NOTE: Any alerting system function that operates normally may be used.				
-45-02-03B	D	1	0	May be inoperative provided crew rest remains unoccupied.				
-45-03 Crew Communication Handset Systems (777F)								
-45-03-01 Supernumerary Handset								
-45-03-01A	С	-	0	(O) May be inoperative provided alternate procedures for communication with supernumerary occupants are established and used.				
-45-03-01B	D	-	0	May be inoperative provided procedures do not require its use. (Continued)				

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	AL AVIATION ADMINIS				MASTER MINIMUM EQUIPMENT LIST				
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BOEING B-777					DATE: 11/05/2014 23-17				
SYSTEM &		1.	2.	NUMBER INSTALLED					
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH				
	MMUNICATIONS				4. REMARKS OR EXCEPTIONS				
25 001	WINDINICATIONS		 						
-45-03	Crew Communication Handset Systems (777F) (Cont'd)								
-45-03-0									
	Crew Rest Handset								
-45-03-0)2A	С	1	0	(O) May be inoperative provided alternate procedures for communication with crew rest occupants are established and used.				
-45-03-0	02B	D	1	0	May be inoperative provided procedures do not require its use.				
-46-01	Cargo Interphone/Intercom System (777F)								
-46-01A		С	1	0	(O) May be inoperative provided alternate procedures are established and used.				
					NOTE: Any cargo interphone/intercom function that operates normally may be used.				
-46-01B	:	D	1	0	May be inoperative provided procedures do not require its use.				

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BOEING B-777					DATE: 11/05/2014 23-18
SYSTE	M &	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH
23 CO	MMUNICATIONS				4. REMARKS OR EXCEPTIONS
25 001	WINDINIOATIONS				
-51-01	Flight Interphone System				
-51-01-	01 Nose Gear Jack				
-51-01-	01A	С	1	0	(O) Flight interphone flight deck to ground/ground to flight deck function may be inoperative provided: a) Nose gear service interphone jack operates normally, and b) Alternate procedures are established and used.
-51-01-	01B	В	1	0	(O) May be inoperative provided alternate procedures are established and used.
-51-01-		_		_	
	Main Equipment Center (MEC) Jacks	D	-	0	May be inoperative provided procedures do not require its use.
-51-02	Flight Deck Speakers	С	2	0	May be inoperative provided: a) Procedures do not require their use, and b) Associated headset earphones or headphones are installed and operate normally.
-51-03 ***	Flight Deck Hand Microphones				
-51-03A	A	С	-	0	May be inoperative or missing provided associated boom microphone operates normally.
-51-03E	3	D	-	0	May be inoperative or missing provided procedures do not require their use.

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SYSTEM & ITEM		2.	NUME	BER INSTALLED
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				4. REWARKS OR EXCEPTIONS
-51-04 Flight Deck Headsets/ Headphones	D	-	-	Any in excess of those required by 14 CFR may be inoperative.
-51-04-01 Headset Boom Microphones				
-51-04-01A	Α	-	0	May be inoperative provided: a) Associated hand microphone is installed and operates normally, and b) Repairs are made within three flight days.
-51-04-01B	D	-	-	Any in excess of those required by 14 CFR may be inoperative.
-51-04-02 Headset Earphones/ Headphones	С	-	1	Either Captain's or First Officer's earphone/headphones may be inoperative provided associated flight deck speaker operates normally.
-51-04-02-01 Active Noise Canceling/Reduction Function	D	-	0	May be inoperative provided normal audio function operates normally.

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SYSTEM & ITEM SEQUENCE			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS				
-51-05 Audio Control Panels				
-51-05-01				
Captain's Audio Control Panel	С	1	0	(O) May be inoperative provided first observer's audio control panel operates normally.
-51-05-02				
First Observer's Audio Control Panel	Α	1	0	May be inoperative provided: a) Captain's audio control panel operates normally, and b) Repairs are made within two flight days.
E1 0E 02				
-51-05-03 *** Second Observer's Audio Control Panel	D	-	0	
-51-06 Microphone (MIC)/Interphone Switches				
-51-06-01				
Control Wheel MIC/Interphone Switches	С	2	1	 (M) One may be inoperative provided: a) Associated audio control panel MIC/interphone switch operates normally, and b) Affected switch is deactivated open.
-51-06-02 Flight Crew Audio	С	2	1	(M) One may be inoperative provided:
Control Panel MIC/Interphone Switches	C		'	a) Associated control wheel MIC/interphone switch operates normally, and b) Affected switch is verified inoperative open.
-51-06-03				
Glareshield MIC/Interphone Switches	С	2	0	(M) May be inoperative provided the affected switch is deactivated open.

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SEQUE NUMBI	INCE			3.	NUMBER REQUIRED FOR DISPATCH		
22 CO	MMUNICATIONS		1		4. REMARKS OR EXCEPTIONS		
23 00	WINDINICATIONS						
-70-01 ***	Flight Deck Door Visual Surveillance Systems (Passenger)						
-70-01	4	A	1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within three flight days.		
-70-01E	3	С	1	0	 (O) May be inoperative provided: a) A flight deck door viewing port is installed and operates normally, and b) Alternate procedures are established and used. 		
					NOTE: Any visual surveillance system function that operates normally may be used.		
-70-010		D	1	0	May be inoperative provided procedures do not require its use.		
-70-02 ***	Direct View Camera System	С	1	0	(O) May be inoperative provided alternate procedures are established and used.		
-71-01	Cockpit Voice Recorder (CVR) System	A	1	0	May be inoperative provided: a) Flight Data Recorder (FDR) operates normally, and b) Repairs are made within three flight days.		
-71-01-							
***	Backup Battery Power	С	1	0			

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LSYSTEM &	. 2.	NUMB	ER INSTALLED
SEQUENCE ITEM		3. 1	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
23 COMMUNICATIONS			
-93-01 Overhead Panel Bus Controllers (OPBC)	2	1	 (M)(O) One OPBC may be inoperative provided: a) The opposite Overhead Panel ARINC 629 System (OPAS) is verified to operate normally before each departure, b) One air conditioning pack operates normally, c) Both auto cabin pressure controls operate normally, d) One center system hydraulic demand pump is selected ON for takeoff and landing, and e) For the left OPBC inoperative, the left and right pitot and static air data modules operate normally.
-93-02 Overhead Panel Interface Cards (OPIC)			
-93-02A C	4	3	One may be inoperative provided: a) One air conditioning pack operates normally, and b) Both center system hydraulic demand pumps operate normally.
-93-02B C	4	3	One may be inoperative provided: a) One air conditioning pack operates normally, and b) One center system hydraulic demand pump is selected ON for takeoff and landing.
-93-03 Panel Data C Concentrator Units (PDCU)	2	1	

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SYSTE	M &	1.	2.	NUME	BER INSTALLED				
SEQUE NUMBE	ENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH				
					4. REMARKS OR EXCEPTIONS				
24 ELE	ECTRICAL POWER		ļ						
-00-1	Electrical Synoptic Display	С	1	0					
-09-01	Electrical Load Management System (ELMS) Power Management Channels	С	6	3	(M) One channel in each ELMS power management panel may be inoperative provided the remaining channel in the associated panel is verified to operate normally before the first flight of each day.				
-11-01	Engine Driven Generator Systems (IDG, GCB)	В	2	1	 (M)(O) One may be inoperative provided: a) Associated IDG is disconnected, b) APU driven generator operates normally and is used to supply buses of the inoperative channel throughout the flight, c) All generator control units, including the APU, are verified to operate normally, d) Backup AC power system is verified to operate normally before each departure, and e) Flight remains within 180 minutes of landing at a suitable airport. 				
-11-02	Integrated Drive Generator (IDG) Oil Pressure Indication Systems	С	2	0					
-21-01	APU Driven Generator System (Generator, AGCU, APB)	С	1	0	 (M)(O) May be inoperative provided: a) Procedures do not require use of the APU for electrical power, b) Auxiliary Power Breaker (APB) remains open, c) Both engine driven generator systems operate normally, d) Backup AC power system is verified to operate normally before each departure, and e) Flight remains within 180 minutes of landing at a suitable airport. NOTE: APU may be used as a pneumatic source. 				

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SYSTE	:N	1.	2.	NUME	BER INSTALLED
SEQUE	ENCE			3.	NUMBER REQUIRED FOR DISPATCH
NUMB	ERS				4. REMARKS OR EXCEPTIONS
24 ELI	ECTRICAL POWER				
-22-01	Relays - AC				
-22-01-	01				
	Ground Handling	С	1	0	(M) May be inoperative provided the equipment on the Ground Handling Bus is deactivated before each departure.
-22-01-	02				
	Ground Service Select	С	1	0	(M) Control of the relay may be inoperative provided the relay remains in the engine running position.
-22-01-	03				
	Ground Service Transfer	С	1	0	(M) Control of the relay may be inoperative provided the relay remains in the engine running position.
-25-01	Backup Electrical Power System (Backup Generators, Converter and CCBs)				
-25-01/	A	С	1	0	May be inoperative provided: a) Both engine driven generators operate normally, and b) APU generator operates normally.
-25-011	3	С	1	0	 (M) May be inoperative provided: a) One backup generator is removed and an appropriate dispatch kit is installed, b) Both engine driven generators operate normally, and c) APU generator operates normally.
-28-01	GEN CONT OFF Lights	С	2	0	

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U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST										
FEDERAL AVIATION ADMINISTRATION AIRCRAFT: REVISION NO: 19 PAGE:										
BOEING B	3-777									
		1		DATE: 05/31/2013 24-3						
SYSTEM & ITEM	1.	2.	NUMBER INSTALLED							
SEQUENCE NUMBERS			3. NUMBER REQUIRED FOR DISPATCH							
24 ELECTRICAL POWER				4. REMARKS OR EXCEPTIONS						
24 ELECTRICAL FOWER										
-28-02 APU GEN OFF Light	С	1	0							
-28-03 BUS TIE ISLN Lights	С	2	0							
-28-04 BACKUP GEN OFF Lights	С	2	0							
-31-01 APU Battery										
-31-01A	С	1	0	(O) May be inoperative provided APU is started before departure and is operated for the entire flight.						
-31-01B	С	1	0	(O) May be inoperative provided: a) Other procedures do not require use of the APU, and b) Flight remains within 180 minutes of landing at a suitable airport.						
-31-01C	С	1	0	 (M)(O) May be inoperative removed provided: a) APU battery charger is deactivated, b) Other procedures do not require use of the APU, and c) Flight remains within 180 minutes of landing at a suitable airport. 						
-31-02 APU Battery Charger										
-31-02A	С	1	0	(M)(O) May be inoperative provided: a) APU battery charger is deactivated, and b) APU is started before departure and is operated for the entire flight.						
-31-02B	С	1	0	 (M)(O) May be inoperative provided: a) Other procedures do not require use of the APU, b) APU battery charger is deactivated, and c) Flight remains within 180 minutes of landing at a suitable airport. 						

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MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION											
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	BOEING B-	///			DATE: 05/31/2013 24-4						
SYSTE	M &	1.	2.	2. NUMBER INSTALLED							
SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH						
NUMBE	:K5				4. REMARKS OR EXCEPTIONS						
24 ELE	ECTRICAL POWER										
-41-01	External Power Systems	С	2	0							
-41-01-	01										
	AVAIL Lights (Flight Deck)	С	2	0	(O) May be inoperative provided alternate procedures are established and used.						
-41-01-	02										
	ON Lights (Flight Deck)	С	2	0	(O) May be inoperative provided alternate procedures are established and used.						
-41-01-	03										
	External Power Connected Lights (External Power Panel)	С	2	0	(O) May be inoperative provided alternate procedures are established and used.						
-41-01-	04										
	External Power Not In Use Lights (External Power Panel)	С	2	0	(O) May be inoperative provided alternate procedures are established and used.						
-41-02	Bus Power Control Unit	С	1	0							
-61-01	Ground Handling Transformer Rectifier Unit	С	1	0							

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BOEING B-	///			DATE: 11/05/2014 25-1					
SYSTEM &	1.	2.	NUMBER INSTALLED						
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH					
				4. REMARKS OR EXCEPTIONS					
25 EQUIPMENT/FURNISHINGS	S								
-11-01 Flight Crew Seats									
-11-01-01									
Power Adjustment Systems	D	2	0	(M) May be inoperative deactivated.					
-11-01-02 Manual Adjustment Systems									
-11-01-02-01									
Recline Systems	A	2	0	(M) May be inoperative provided: a) Seat is secured in an upright position acceptable to the affected crewmember, and b) Repairs are made within two flight days.					
-11-01-02-02									
Vertical Adjustments	A	2	0	May be inoperative provided: a) Seat is acceptable to the affected crewmember, and b) Repairs are made within two flight days.					
-11-01-02-03									
Armrests	В	4	0	(M) May be inoperative provided: a) Affected armrest is stowed in the retracted position or removed, and b) Seat is acceptable to affected crewmember.					
-11-01-02-04									
Lumbar/Thigh Supports	С	4	0	May be inoperative provided seat is acceptable to the affected crewmember.					
-11-01-02-05	-								
Headrests	С	2	0	May be inoperative provided seat is acceptable to the affected crewmember.					

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BOEING B-	777			DATE: 11/05/2014 25-2
	1.	2.	NII IMI	BER INSTALLED
SYSTEM & ITEM SEQUENCE	1.	۷.		NUMBER REQUIRED FOR DISPATCH
NUMBERS			٥.	4. REMARKS OR EXCEPTIONS
25 EQUIPMENT/FURNISHING	S	1		4. KEMAKKO OK EXCEL HONO
-11-02 Observer Seat(s)				
-11-02-01				
First Observer Seat (Including Associated Equipment)				
-11-02-01A	Α	1	0	May be inoperative provided: a) A passenger seat in the passenger cabin is made available to an FAA inspector for the performance of official duties, and b) Repairs are made within two flight days.
-11-02-01B	Α	1	0	May be inoperative provided: a) Second observer seat is available, and acceptable to an FAA inspector for the performance of official duties, and b) Repairs are made within two flight days.
-11-02-01C	A	1	0	 May be inoperative provided: a) First observer seat is acceptable to the FAA inspector for the performance of official duties, b) Required minimum safety equipment (safety belt and oxygen) is available, and c) Repairs are made within two flight days. NOTE 1: These provisos are intended to provide for occupancy of the above seats by an FAA inspector when the minimum safety equipment (safety belt and oxygen) is functional and the inspector determines the conditions to be acceptable.
				NOTE 2: The Pilot-in-Command will determine if the minimum safety equipment is functional for the other persons authorized to occupy an observer seat(s).
				(Continued)

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AIRCR			REVISION NO: 20a PAGE:						
			ı		DATE: 11/05/2014 25-3				
SYSTE	M &	1.	2.	NUME	BER INSTALLED				
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH				
					4. REMARKS OR EXCEPTIONS				
25 EQI	JIPMENT/FURNISHING	S	l I	l I					
-11-02	Observer Seat(s) (Cont'd)								
-11-02-	02								
***	Second Observer Seat(s) (Including Associated Equipment)	D	-	0	NOTE: The Pilot-in-Command will determine if the minimum safety equipment is functional for the other persons authorized to occupy an observer seat(s).				
-18-01	Flotation Equipment	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing provided required distribution is maintained.				
-20-01	Non-Essential Equipment and Furnishings (NEF)		-	0	May be inoperative, damaged or missing provided that the item(s) is deferred in accordance with the operator's NEF deferral program. The NEF program, procedures and processes are outlined in the operator's (insert name) Manual. (M) and (O) procedures, if required, must be available to the flight crew and included in the operator's appropriate document.				
					NOTE: Exterior lavatory door ash trays are not considered NEF items.				

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST									
FEDERAL AVIATION ADMINISTRAT	ION			MASTER MINIMUM EQU	JIPMENT LIST				
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BOLING B-111				DATE: 11/05/2014	25-4				
SYSTEM & ITEM SEQUENCE NUMBERS	2.	NUMBER INSTALLED 3. NUMBER REQUIRED FOR DISPATCH							
OF FOUNDMENT/FUDNICHINGS			4.	REMARKS OR EXCEPTIONS					
25 EQUIPMENT/FURNISHINGS		l i	 						
-25-01 Flight Attendant Seat Assembly (Single or Dual Position)									
-25-01-01 Required Flight Attendant Seats (Passenger)									
-25-01-01A B			c) d) NOTE	inoperative seat(s) occupies adjacent flight attendant sear passenger seat which is most accessible to the inoperative as to most effectively perform duties, Alternate procedures are est and used as published in cremanuals, Folding type seat stows auto is secured in the retracted possible.	by either an or the st seat(s), so n assigned ablished wmember matically or osition, and flight FLIGHT nat will not dered erative or				

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AIRCRA	FT: BOEING B-777				REVISION NO: 20a	PAGE:			
	BOLING B-111				DATE: 11/05/2014	25-5			
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SEQUEN NUMBER	ICE ITEM		3.	NUMBER REQUIRED FOR DISPATCH					
				4. REMARKS OR EXCEPTIONS					
25 EQU	IPMENT/FURNISHINGS								
	Flight Attendant Seat Assembly (Single or Dual Position) (Cont'd)								
-25-01-0	1								
	Required Flight Attendant Seats (Passenger) (Cont'd)								
-25-01-0	1A								
(Cont'd)				NOTE 3: Individual operators, when operating with inoperative seats, will consider the locations and combinations of seats to ensure that proximity to exits and distribution requirements of the applicable 14 CFRs are met.					
				inope the a	E 4: If one side of a dual seat a erative and a flight attendant is djacent seat, the adjacent seat ate normally.	displaced to			
				(Con	tinued)				

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FEDERAL AVIATION ADMINISTRATION									
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	BOEING B-111			DATE: 11/05/2014 25-6					
SYSTE	M &	2.	NUME	BER INSTALLED					
SEQUE NUMBI	NCE ITEM		3. NUMBER REQUIRED FOR DISPATCH						
				4. REMARKS OR EXCEPTIONS					
25 EQ	JIPMENT/FURNISHINGS								
-25-01	Flight Attendant Seat Assembly (Single or Dual Position) (Cont'd)								
-25-01-	01								
	Required Flight Attendant Seats (Passenger) (Cont'd)								
-25-01-	01B C		0	 (M)(O) May be inoperative provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, c) Folding type seat stows automatically or is secured in the retracted position, d) Affected seat position or seat assembly is not occupied, and e) Alternate procedures are established and used. NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative. NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative. (Continued) 					

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MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
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BOEING B-777			DATE: 11/05/2014 25-7						
SYSTEM & ITEM	2.								
SEQUENCE		3.	NUMBER REQUIRED FOR DISPATCH						
NUMBERS			4. REMARKS OR EXCEPTIONS						
25 EQUIPMENT/FURNISHINGS									
-25-01 Flight Attendant Seat Assembly (Single or Dual Position) (Cont'd)									
-25-01-02									
Excess Flight C Attendant Seats (Passenger)	-	-	 (M) May be inoperative provided: a) Affected seat position or seat assembly is not occupied, and b) Folding type seat stows automatically or is secured in the retracted position. 						
			NOTE 1: An automatic folding seat that will not stow automatically is considered inoperative.						
			NOTE 2: A seat position with an inoperative or missing restraint system is considered inoperative.						
-25-01-03 *** 777F D	-	-	May be inoperative provided affected seat position or seat assembly is not occupied.						

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MASTER MINIMUM EQUIPMENT LIST									
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BOEING B-	777		REVISION NO: 20a PA						
				DATE: 11/05/2014 25-8					
SYSTEM & ITEM	1.	2.	NUMBER INSTALLED						
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH					
NOMBERO				4. REMARKS OR EXCEPTIONS					
25 EQUIPMENT/FURNISHING	S								
-25-02 Passenger Seats (Passenger)	D	-	-	 (M) May be inoperative provided: a) Seat does not block an emergency exit, b) Seat does not restrict any passenger from access to the main airplane aisle, and c) Affected seat(s) is blocked and placarded DO NOT OCCUPY. NOTE 1: A seat with an inoperative or missing seat belt is considered inoperative. NOTE 2: Inoperative seats do not affect the required number of flight attendants. NOTE 3: Affected seat(s) may include the seat(s) behind and/or adjacent outboard seats. 					
-25-02-01 Recline Mechanism									
-25-02-01A	D	-	-	(M) May be inoperative and seat occupied provided seat is secured in the full up-right position.					
-25-02-01B	D	-	-	May be inoperative and seat occupied provided seat back is immovable in the full up-right position.					
-25-02-02 Underseat Baggage Restraining Bars	С	-	-	 (O) May be inoperative provided: a) Baggage is not stowed under seat with inoperative restraining bar, b) Associated seat is placarded DO NOT STOW BAGGAGE UNDER THIS SEAT, and c) Procedures are established to alert cabin crew of inoperative restraining bar. (Continued) 					

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FEDERAL AVIATION ADMINISTRATION										
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ВС	DEING B-777				DATE: 11/05/2	2014	25-9			
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SEQUENCE	EM		3. NUMBER REQUIRED FOR DISPATCH							
NUMBERS			4. REMARKS OR EXCEPTIONS							
25 EQUIPMENT/FURI	VISHINGS									
-25-02 Passenger Se (Passenger) (Cont'd)	ats						1			
-25-02-03 Armrests										
-25-02-03-01 Armrest With I Mechanism	Recline D	-	-	occupi	from access to and	not block an Em not restrict any p the main airpla	nergency passenger ne aisle,			
-25-02-03-02										
Armrest Witho Recline Mecha		-	-	occupi a)		not block an Em	nergency			

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AIRCRA		777				REVISION NO:	20a	PAGE:		
	BOEING B-7	111				DATE: 11/05/20)14	25-10		
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SEQUE	NCE			3. NUMBER REQUIRED FOR DISPATCH						
NUMBE	:K5				4. R	EMARKS OR EX	CEPTIONS			
25 EQI	JIPMENT/FURNISHING	S								
-25-02	Passenger Seats (Passenger) (Cont'd)									
-25-02-0	04									
***	Seat Belt Air Bag Restraint Systems									
-25-02-0	04-01									
Seat Belt Air Bags D Required by 14 CFR		D	-	-	May be inoperative provided affected seat is blocked and placarded DO NOT OCCUPY.					
-25-02-0	04-02									
	Seat Belt Air Bags Not Required by 14 CFR	D	-	-		inoperative or di It operates norma		ovided 		
-25-03	Supernumerary Seats (777F)	D	-	0	a) b)	y be inoperative p Seat is not occu Affected seat(s) placarded DO N A seat with an in considered inope	pied, and is blocked and IOT OCCUPY. operative seat			
					(Contin	ued)				

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FEDERAL AVIATION	ADMINISTRATI	ION			MASTER N	MINIMUM EQUI	PMENT LIST
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8	OEING B-777				DATE: 11/05/2	2014	25-11
SYSTEM &	1.	2.	NUME	BER INS	ΓALLED		
SEQUENCE	ITEM		3.	NUMBE	R REQUIRED F	OR DISPATCH	I
NUMBERS				4. R	EMARKS OR E	XCEPTIONS	
25 EQUIPMENT/FUR	RNISHINGS						
-25-03 Supernumera (777F) (Cont'd)	ary Seats						
-25-03-01							
Recline Mecl	nanism						
-25-03-01A	D	-	-		d seat is secure	e and seat occuped in the full up-	
-25-03-01B	D	-	-		ck is immovable	d seat occupied e in the full up-ri	
-25-03-02							
Armrests	D	-	0			e provided armre sition or remove	
-25-04 Crew/Attenda *** Seats	ant Rest D	-	0	a)			
				NOTE:	A seat with an i considered inor	inoperative seat perative.	belt is
-25-04-01							
Recline Mecl	nanism						
-25-04-01A	D	-	-		d seat is secure	e and seat occuped in the full up-	
-25-04-01B	D	-	-		ck is immovable	d seat occupied e in the full up-ri	
				(Contin	ued)		

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		T .		DATE: 11/05/2014 25-12
SYSTEM & ITEM	1.	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
NOWBENS				4. REMARKS OR EXCEPTIONS
25 EQUIPMENT/FURNISHING	SS			
-25-04 Crew/Attendant Rest *** Seats (Cont'd)	D	-	0	
-25-04-02 Armrests	D	-	0	(M) May be inoperative provided armrest is stowed in retracted position or removed.
-28-01 Storage Bin(s)/Cabin and Galley Storage Compartments/ Closets				
-28-01A	C		-	 (M) May be inoperative provided: a) Procedures are established to secure the affected bin, compartment or closet in the closed position, b) Associated bin, compartment or closet is prominently placarded DO NOT USE, c) Any emergency equipment located in affected bin, compartment or closet is considered inoperative, and d) Affected bin, compartment or closet is not used for storage of any items except for those permanently affixed. NOTE: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative. (Continued)

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1.	2.	NUME	BER INSTALLED		
SYSTEM & ITEM SEQUENCE		3.	NUMBER REQUIRED FOR DISPATCH		
NUMBERS			4. REMARKS OR EXCEPTIONS		
25 EQUIPMENT/FURNISHINGS					
-28-01 Storage Bin(s)/Cabin and Galley Storage Compartments/ Closets (Cont'd)					
-28-01B C	-		 (M)(O) May be inoperative provided: a) For non-retractable doors, affected door is removed, b) For retractable doors, affected door is removed or secured in the retracted (fully open) position, c) Affected bin, compartment or closet is not used for storage of any items, except those permanently affixed, d) Affected bin, compartment or closet is prominently placarded DO NOT USE, e) Procedures are established and used to alert crew members and passengers of inoperative bins, compartments or closets, and f) Passengers are briefed that affected bin, compartment or closet is not to be used NOTE 1: For overhead bins, if no partitions are installed, the entire overhead bin is considered inoperative. NOTE 2: Any emergency equipment located in the affected bin, compartment or closet (permanently affixed) is available for use. 		
-28-01-01 Multi Latch/Quarter C Turn Lug Installations	-	-	One latch/lug per compartment may be inoperative provided: a) Remaining latch(es)/lug(s) on affected compartments operates normally, and b) If affected compartment is used for a galley cart, the cart remains empty.		
			(Continued)		

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NUMBE	ERS				4. REMARKS OR EXCEPTIONS				
25 EQ	UIPMENT/FURNISHING	S							
-28-01	Storage Bin(s)/Cabin and Galley Storage Compartments/ Closets (Cont'd)								
-28-01-	02								
***	Storage Compartment Key Locks	D	-	0	(M) May be inoperative in the unlocked position provided doors can be secured by other means.				
-28-02 ***	Overhead Cross Aisle Stowage (OCAS) System	D	-	0	(M) May be inoperative provided affected OCAS is deactivated closed.				
-28-02-	01								
	Electric Extend/Retract Function	D	-	0	(M) May be inoperative provided associated electric motor is deactivated.				
-29-01 ***	Flight Crew Rest (FCR) Door								
-29-01 <i>P</i>	A	С	-	0	(M) May be inoperative provided associated FCR is deactivated closed.				
					NOTE: This provision is not intended to prohibit FCR inspections by crewmembers.				
-29-01E	3	С	-	0	(M) May be inoperative provided associated FCR door is removed.				
-29-01-	01 Door Lock	С	-	0	(M) May be inoperative provided: a) Associated FCR door lock is deactivated in the unlocked position, and b) Associated FCR door opens and closes normally.				

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					DATE: 11/05/2014 25-15				
SYSTE	M & ITEM	1.	2.	2. NUMBER INSTALLED					
SEQUE NUMBE	NCE			3.	NUMBER REQUIRED FOR DISPATCH				
					4. REMARKS OR EXCEPTIONS				
25 EQL	JIPMENT/FURNISHING	S							
-29-02 ***	Main Deck Crew Rest (MDCR)/Main Deck Flight Crew Rest (MDFCR) Door								
-29-02A		С	-	0	(M) May be inoperative provided MDCR/MDFCR is deactivated closed.				
					NOTE: This provision is not intended to prohibit MDCR/MDFCR inspections by crewmembers.				
-29-02B		С	-	0	(M) May be inoperative provided MDCR/MDFCR door is removed.				
-29-02-0)1								
20 02 0	Door Lock	С	-	0	(M) May be inoperative provided: a) Associated MDCR/MDFCR door lock is deactivated in the unlocked position, and b) Associated MDCR/MDFCR door opens and closes normally.				
-29-03 ***	Overhead Flight Crew/Attendant Rest	С	-	0	(M) May be inoperative provided associated crew/attendant rest is deactivated closed.				
	Door (Includes FSI Installation)				NOTE: This provision is not intended to prohibit crew/attendant rest inspections by crewmembers.				
-29-03-0	01								
	Door Lock	С	-	0	 (M) May be inoperative provided: a) Associated OFCR/OFAR door lock is deactivated in the unlocked position, and b) Associated OFCR/OFAR door opens and closes normally. 				

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SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	:RS				4. REMARKS OR EXCEPTIONS
25 EQI	JIPMENT/FURNISHING	S			
-29-04 ***	Crew/Attendant Rests (OFCR, OFAR, FCR, MDCR, MDFCR,	С	-	0	(M) May be inoperative provided associated crew/attendant rest is deactivated closed.
	LLAR)				NOTE: This provision is not intended to prohibit crew/attendant rest inspections by crewmembers.
-29-05 ***	Lower Lobe Attendant Rest (LLAR) Entrance Enclosure Door	С	1	0	(M) May be inoperative provided LLAR is deactivated closed.
	Enclosure Door				NOTE: This provision is not intended to prohibit LLAR inspections by crewmembers.
-29-05-0	01				
	Door Lock	С	1	0	 (M) May be inoperative provided: a) LLAR entrance enclosure door lock is deactivated in the unlocked position, and b) LLAR entrance enclosure door opens and closes normally.
-30-01	Galley/Cabin Waste Container Access Door/Covers	С	-	-	(M)(O) May be inoperative provided: a) Associated waste container is empty and access is secured to prevent waste introduction into the waste container, and b) Procedures are established to ensure that sufficient galley/cabin waste containers are available to accommodate all waste that may be generated on a flight.
-41-01	Exterior Lavatory Door Ashtrays				
-41-01-0	01				
	Passenger	Α	-	-	Fifty percent may be inoperative or missing provided repairs are made within 10 calendar days.
-41-01-0					
	777F	Α	1	0	May be inoperative or missing provided repair is made within 10 calendar days.

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25 EQ	UIPMENT/FURNISHING	S			4. KEMANING ON EXCELLIONS			
-41-02	Lavatory Waste Container Flapper/Access Doors	С	-	-	 (M) May be inoperative provided: a) Associated waste container is empty and access is secured to prevent waste introduction into the waste container, b) Lavatory is used only by crewmembers, and c) Associated lavatory entrance door is locked closed and placarded, INOPERATIVE – DO NOT ENTER. NOTE: These provisions are not intended to prohibit lavatory use or inspections by 			
-52-01	Lower Cargo Compartment Lining (Forward and Aft)	С	-	-	crewmembers. (O) May be damaged or missing provided procedures are established and used to verify the associated cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits.			
					NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.			
-53-01	Lower Cargo Handling Systems	D	-	0	NOTE: Any portion of the system which operates normally may be used.			

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					4. REMARKS OR EXCEPTIONS
25 EQ	UIPMENT/FURNISHIN	IGS			
-53-02	Lower Cargo Restraint Systems				
-53-02/	A	Α	-	-	 (M) May be inoperative or missing provided: a) Acceptable cargo loading limits from an approved source, i.e., an approved Cargo Loading Manual or Weight and Balance Manual, are observed, and b) Repairs are made prior to the completion of the next heavy maintenance visit.
-53-02E	3	С	-	-	May be inoperative or missing provided associated cargo compartment remains empty.
-57-01	Main Deck Cargo Handling Systems (777F)	D	-	0	NOTE: Any portion of the system which operates normally may be used.
-58-01	Main Deck Cargo Restraint Systems (777F)				
-58-01/	A	Α	-	-	 (M) May be inoperative or missing provided: a) Acceptable cargo loading limits from an approved source, i.e., an approved Cargo Loading Manual or Weight and Balance Manual, are observed, and b) Repairs are made prior to the completion of the next heavy maintenance visit.
-58-01E	3	С	-	-	May be inoperative or missing provided associated cargo compartment remains empty.

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25 EQ	UIPMENT/FURNISHING	S								
-59-01	Main Deck Cargo Compartment Lining (777F)	С	-	-	(O) May be damaged or missing provided procedures are established and used to verify the main deck cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits. NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.					
-63-01 ***	Emergency Evacuation Signal System	С	1	0	(O) May be inoperative provided alternate procedures are used as primary means of initiating an emergency evacuation.					
-63-02	FASTEN SEAT BELT WHILE SEATED Placards	С	-	-	One or more signs or placards may be illegible or missing provided a legible sign or placard is readable from each occupied passenger seat.					
-63-03 ***	Portable Emergency Locator Transmitter (ELT)	D	-	-	Any in excess of those required by 14 CFR may be inoperative or missing.					
-64-01	Megaphones (Passenger)									
-64-01 <i>A</i>		D	-	2	Any in excess of those required by 14 CFR may be inoperative or missing provided: a) Inoperative megaphone is removed from passenger cabin, b) Its associated placard is removed or obscured, and c) Required distribution is maintained.					
-64-01E	3	С	-	0	 (O) May be inoperative or missing provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CRF for non-passenger carrying operations are carried, and c) Alternate procedures are established and used. 					

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NUMBERS				4. REMARKS OR EXCEPTIONS				
25 EQUIPMENT/FURNISHINGS	;							
-64-02 Flashlight Holder Assemblies (Including Flashlight)	С	-	-					
-64-02A	С	-	-	May be inoperative or missing provided crewmember has a flashlight of equivalent characteristics readily available.				
-64-02B	С	-	0	 (O) May be inoperative or missing provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, and c) Alternate procedures are established and used. 				
-64-03 Emergency Medical Equipment								
-64-03-01 First Aid Kit (FAK) and/or Associated Equipment								
-64-03-01A	Α	-	-	(O) If more than one is required by 14 CFR, only one of the required first aid kits may be incomplete, missing or inoperative provided: a) FAK is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within one flight.				
-64-03-01B	D	-	-	Any in excess of those required by 14 CFR may be incomplete, missing or inoperative. (Continued)				

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				4. REMARKS OR EXCEPTIONS
25 EQUIPMENT/FURNISHING	GS			
-64-03 Emergency Medical Equipment (Cont'd)				
-64-03-02 *** Emergency Medical Kit (EMK) and/or Associated Equipment				
-64-03-02A	Α	-	0	 (O) May be incomplete, missing or inoperative provided: a) EMK is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within one flight.
-64-03-02B	D	-	-	Any in excess of those required by 14 CFR may be incomplete, missing or inoperative.
				(Continued)

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				4. REMARKS OR EXCEPTIONS
25 EQUIPMEN	NT/FURNISHINGS			
-64-03 Emero Equipi (Cont'				
Defibr	ated External illators (AED) · Associated ment			
-64-03-03A	A	-	0	(O) May be incomplete, missing or inoperative provided: a) AED is resealed in a manner that will identify it as a unit that can not be mistaken for a fully serviceable unit, and b) Repairs or replacements are made within one flight.
-64-03-03B	D	-	-	Any in excess of those required by 14 CFR may be incomplete, missing or inoperative.
-64-04 Smoke *** (SVS)	e Vision System D	2	0	May be inoperative or missing.

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26 FIRI	E PROTECTION							
-11-01	Engine Fire Detector Loops							
-11-01-0	01							
	PW & GE	С	4	2	One per engine may be inoperative.			
-11-01-0	D2 RR							
-11-01-0	02-01 SB 777-26-0011 (PRR 61202-38) and SB 777-26-0014 (PRR 61202-39) Incorporated	С	4	2	One per engine may be inoperative.			
-11-01-(02-02							
	All Others	В	4	2	One per engine may be inoperative.			
-11-02	Engine Overheat Circuits	С	4	0				
-13-01	Lavatory Smoke Detection Systems							
-13-01-0								
	Passenger	С	-	-	(M)(O) For each lavatory, may be inoperative provided associated: a) Lavatory waste container is empty, b) Lavatory door is locked closed and placarded, INOPERATIVE – DO NOT ENTER, and c) Lavatory is used only by crewmembers. NOTE: These provisions are not intended to prohibit lavatory use or inspections by			
					crewmembers.			
					(Continued)			

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26 FIR	E PROTECTION							
-13-01	Lavatory Smoke Detection Systems (Cont'd)							
-13-01-0	01 Passenger (Cont'd)							
-13-01-0	01-01							
	Lavatory Call Light Smoke Detected Function	С	-	0	NOTE: Attendant call and occupancy indications are considered NEF.			
-13-01-0	02							
	777F	D	1	0				
-13-02 ***	Overhead Cross Aisle Stowage (OCAS) Smoke Detection System (Detector, Horn and Light)	D	-	0				
-14-01 ***	Lower Lobe Attendant Rest (LLAR) Smoke Detection System	С	1	0	 (M)(O) May be inoperative provided: a) LLAR shutoff valve is deactivated closed, and b) LLAR is deactivated closed. 			
					NOTE: These provisions are not intended to prohibit LLAR inspections by crewmembers.			
-14-01-0	01 Remote Smoke	С	2	1	One channel may be incorretive provided both			
	Detector Channels	C	2	1	One channel may be inoperative provided both aft cargo compartment smoke detector channels operate normally.			

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26 FIRE PROTECTIO	N							
			}	 				
-14-02 Flight Crew R		-	0) May be inoperati			
*** (FCR) Smoke Detection Sys				(a)	Associated FCF system is deact		tion	
20.000				b)	Associated FCF		d closed.	
				NOTE	: These provisions	s are not inten	ded to	
					prohibit FCR ins crewmembers.	spections by		
					crewinembers.			
-14-02-01	.D. 0			(1.1) (0.	١			
Two Bunk FC Bunk Smoke	CR - C	2	1		One may be inon Associated bun			
Detectors				'	personal items	are removed, a	and	
				(D)	A conspicuous I placed across the			
					a placard attach		t the bunk	
					is not to be used	u.		
-14-02-02	-00 0					d. l. d		
Single Bunk F Smoke Detec		-	1		e inoperative and moke detector ope			
					iated FCR.	•		
-14-02-03								
Seat Only FC		2	1					
Smoke Detec	tors							

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26 FIR	E PROTECTION							
			<u> </u> 	<u> </u> 				
-14-03 ***	Main Deck Crew Rest (MDCR)/Main Deck Flight Crew Rest (MDFCR) Smoke Detection System	С	1	0	 (M)(O) May be inoperative provided: a) Smoke detection system is deactivated, and b) MDCR/MDFCR is deactivated closed. NOTE: These provisions are not intended to prohibit MDCR/MDFCR inspections by crewmembers. 			
-14-03-	01							
	Bunk Smoke Detectors (MDCR)	C	4	2	(M)(O) May be inoperative provided: a) Associated bunk is not used and personal items are removed, and b) A conspicuous barrier strap or rope is placed across the associated bunk with a placard attached stating that the bunk is not to be used.			

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26 FIRE PROTECTION	1			4. REMARKS OR EXCEPTIONS				
20 FIRE PROTECTION	N .	ļ						
-14-04 Overhead Fligh *** Crew/Attendan Smoke Detecti Systems	t Rest	2	0	 (M)(O) May be inoperative provided: a) Inoperative smoke detection system is deactivated, and b) Associated crew rest is deactivated closed. NOTE: These provisions are not intended to prohibit crew rest inspections by crewmembers. 				
-14-04-01								
Bunk Smoke Detectors	С	-	0	May be inoperative provided: a) Adjacent aisle/common area smoke detector(s) operate normally, and b) For bunk curtain installed, associated curtain is secured open or removed.				
-14-04-02								
Common Area Detectors	Smoke							
-14-04-02-01								
Overhead Fligh Rest (OFCR)	nt Crew C	-	0	May be inoperative provided: a) Bunk smoke detector(s) operate normally, and b) For common area or bunk curtain(s) installed, curtain(s) is secured open or removed.				
-14-04-02-02								
Overhead Fligh Attendant Rest (OFAR)		-	1	May be inoperative provided no more than one bunk smoke detector in adjacent bunk area(s) is inoperative.				
-14-04-03								
*** Aisle Smoke Detectors (OF	C AR)	-	-	May be inoperative provided adjacent aisle/common area smoke detector(s) operates normally.				
				(Continued)				

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			4. REMARKS OR EXCEPTIONS				
26 FIRE PROTECTION							
-14-04 Overhead Flight *** Crew/Attendant Rest Smoke Detection Systems (Cont'd)							
-14-04-04							
*** Closet Smoke C Detector(s)	-	0	 (M)(O) May be inoperative provided: a) Closet is not used and personal items are removed, and b) A conspicuous barrier strap or rope is placed across the closet door with a placard attached stating the closet is not to be used. 				
-14-04-05							
Vanity Module C (Includes Sink With Drink Storage Area) Smoke Detector (OFCR)	1	0	May be inoperative provided: a) All common area smoke detectors operate normally, b) Stairwell smoke detector operates normally, and c) For common area curtain installed, common area curtain is secured open or removed. common area curtain is secured open or removed.				
-14-04-06							
Stairwell Smoke Detector							
-14-04-06-01		_					
*** OFCR Without C Lavatory	1	0	May be inoperative provided: a) All common area smoke detectors operate normally, and b) For common area curtain installed, common area curtain is secured open or removed. (Continued)				

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26 FIRE	PROTECTION							
-14-04 ***	Overhead Flight Crew/Attendant Rest Smoke Detection Systems (Cont'd)							
-14-04-0	6							
	Stairwell Smoke Detector (Cont'd)							
-14-04-0	6-02							
***	OFCR With Lavatory	С	1	0	 (M) May be inoperative provided: a) All common area smoke detectors operate normally, b) For common area curtain installed, common area curtain is secured open or removed, and c) Waste container is empty and access is secured to prevent waste introduction into the waste container. 			
-14-04-0								
	OFAR	С	1	0	May be inoperative provided: a) All common area smoke detectors operate normally, and b) For common area curtain installed, common area curtain is secured open or removed.			
-14-04-0	7							
***	Changing Area Smoke Detector (OFAR)	С	1	0	May be inoperative provided: a) All common area smoke detectors operate normally, b) Stairwell smoke detector operates normally, and c) For changing area curtain installed, changing area curtain is secured open or removed.			
					(Continued)			

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					4. REMARKS OR EXCEPTIONS		
26 FIR	E PROTECTION						
-14-04 ***	Overhead Flight Crew/Attendant Rest Smoke Detection Systems (Cont'd)						
-14-04-	08						
***	Lavatory Smoke Detector (OFCR)	С	1	0	May be inoperative provided: a) All common area smoke detectors operate normally, b) Stairwell smoke detector operates normally, and c) For common area curtain installed, common area curtain is secured open or removed.		
-14-05 ***	Overhead Flight Crew/Attendant Rest Smoke Detection Systems (FSI Installation)	С	2	0	 (M)(O) May be inoperative provided: a) Inoperative smoke detection system is deactivated, and b) Associated crew rest is deactivated closed. NOTE: These provisions are not intended to prohibit crew rest inspections by 		
					crewmembers.		
-14-05-	01 Bunk Smoke Detectors						
-14-05-	01-01 Overhead Flight Crew Rest (OFCR)	С	2	0	(M)(O) May be inoperative provided: a) Common are smoke detection system operates normally, and b) Bunk curtains remain open. (Continued)		

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26 FIRE PROTECTION			
-14-05 Overhead Flight *** Crew/Attendant Rest Smoke Detection Systems (FSI Installation) (Cont'd)			
-14-05-01 Bunk Smoke Detectors (Cont'd)			
-14-05-01-02 Overhead Attendant C Rest (OHAR) Forward and Aft Bunks	2	0	 (M)(O) May be inoperative provided: a) Common area smoke detection system operates normally, b) Forward and aft bunks (1, 2, 7 & 8) are not used and personal items are removed, and c) A conspicuous barrier strap or rope is placed across the associated bunk with a placard attached stating that the bunk is not to be used.
-14-05-02 Common Area Smoke Detector			
-14-05-02-01 Overhead Flight Crew C Rest (OFCR)	1	0	(M) May be inoperative provided OFCR is deactivated closed. NOTE: This provision is not intended to prohibit OFCR inspections by crewmembers. (Continued)

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-14-05 ***	Overhead Flight Crew/Attendant Rest Smoke Detection Systems (FSI Installation) (Cont'd)							
-14-05-0	Common Area Smoke Detector (Cont'd)							
-14-05-0				•	(10.14.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.			
	Overhead Attendant Rest (OHAR)	С	1	0	(M) May be inoperative provided OHAR is deactivated closed.			
					NOTE: This provision is not intended to prohibit OHAR inspections by crewmembers.			
-14-05-0	03 Vestibule Smoke Detector							
-14-05-0	03-01							
	Overhead Flight Crew Rest (OFCR)	С	1	0	May be inoperative provided common and bunk area smoke detectors operate normally.			
-14-05-0								
	Overhead Attendant Rest (OHAR)	С	1	0	May be inoperative provided common and bunk area smoke detectors operate normally.			

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26 FIRE PROTECTION							
-15-01 APU Fire Detection System							
-15-01A	С	1	0	 (O) May be inoperative provided: a) Other procedures do not require use of APU, b) APU selector switch remains in the OFF position, and c) Flight remains within 180 minutes of landing at a suitable airport. 			
-15-01B	С	1	0	 (M)(O) May be inoperative provided: a) Other procedures do not require use of APU, b) APU is used for ground operations only, c) APU is continuously monitored by ground personnel when operating, d) APU external control system operates normally, e) APU is not used during taxi, and f) Flight remains within 180 minutes of landing at a suitable airport. 			
-15-01-01 APU Fire Detector Loops	С	2	1				

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20 FIR	E PROTECTION		İ						
-16-01	Lower Cargo Compartment Smoke Detection Systems (Forward and Aft) (Passenger)	C	2	0	 (M)(O) May be inoperative provided: a) Procedures are established and used to verify the associated compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, b) For LLAR installed and aft compartment system inoperative, LLAR is deactivated closed, and c) For FCAC installed and forward compartment system inoperative, FCAC remains OFF. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit LLAR inspections by crewmembers. 				
-16-01-0	01 Lower Cargo	С	4	2	One channel per compartment may be				
	Compartment Smoke Detector Channels				inoperative.				
-16-01-0									
	Lower Cargo Compartment Smoke Detector Fans	С	4	2	One fan per compartment may be inoperative.				
					(Continued)				

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26 FIRE PROTECTION				4.	REMARKS OR EX	CEPTIONS					
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-16-01 Lower Cargo Compartment Smoke Detection Systems (Forward and Aft) (Passenger) (Cont'd)											
-16-01-03	•			(1.1) (0.							
Lower Cargo Compartment Smoke Detector Zones	C		0	b)	compartment sy inoperative, FCA 1: Operator MELs items are approfly away kits ar be used as ball 2: These provision prohibit LLAR is crewmembers.	established ar ated compartrement zor contains onleding equipmed loaded in ULD ed and aft con 3 detector inopated closed, and led and any for stem zone detact remains Of a must define word for inclusing which materials.	nd used to ment zone ne(s) y ballast, ent is), or fly inpartment perative, and inward ector in in the rials can				

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				DATE: 11/05/2014 26-14
SYSTEM &	1.	2.	NUME	BER INSTALLED
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NUMBERS				4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION				
-16-01 Lower Cargo Compartment Smok Detection Systems (Forward and Aft) (Passenger) (Cont'd)	Э			
-16-01-04 Lower Cargo Compartment Smok Detector Heaters	е			
-16-01-04A	С	-	0	May be inoperative provided humid cargo is not carried in the associated compartment.
-16-01-04B	С	-	0	(O) May be inoperative provided procedures are established and used when humid cargo is carried in the associated compartment.
-16-02 Lower Cargo Compartment Smok Detection Systems (777F)	e			
-16-02-01				
Forward	С	1	0	(M)(O) May be inoperative provided: a) Procedures are established and used to verify the forward compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, and b) FCAC remains OFF.
				NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.
				(Continued)

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BOLING B 11	•			DATE: 11/05/2014 26-15
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SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
26 FIRE PROTECTION				
-16-02 Lower Cargo Compartment Smoke Detection Systems (777F) (Cont'd)				
-16-02-01				
Forward (Cont'd)				
-16-02-01-01				
Detectors (15	12	One detector in each zone may be inoperative provided adjacent smoke detectors operate normally.
-16-02-01-02				
	C	3		 (M)(O) May be inoperative provided: a) All detectors in a loaded zone operate normally, and b) Procedures are established and used to verify the associated compartment zone remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits.
				NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.
				(Continued)

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NUMBERS				4. R	EMARKS OR E	XCEPTIONS				
26 FIRE PROTECTION	N									
-16-02 Lower Cargo Compartmen Detection Sys (777F) (Cont'd)	t Smoke									
-16-02-02										
Aft	С	1	0	a)	May be inoperated Procedures are verify the aft concernity or contact cargo handling be loaded in UI For ACAC instact OFF.	e established a ompartment rer ins only ballas equipment (ba LDs), or fly awa	mains t, empty allast may ay kits, and			
				NOTE:	Operator MELs are approved fo kits and which r ballast.	or inclusion in t	he fly away			
-16-02-02-01	0	4.5	40	0.00	tootorio oook -					
Detectors	С	15	12		tector in each zo d adjacent smol y.					
-16-02-02-02										
Detector Zon	es C	3	-	b)	May be inoperated All detectors in normally, and Procedures are verify the associated remains empty empty cargo has (ballast may be away kits.	a loaded zone e established a ciated compart or contains on andling equipm e loaded in ULI	nd used to ment zone ly ballast, ent Os), or fly			
				NOTE:	Operator MELs are approved fo kits and which r ballast.	or inclusion in t	he fly away			

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			DATE: 11/05/2014 26-17						
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SEQUENCE TIEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH						
NOMBERS			4. REMARKS OR EXCEPTIONS						
26 FIRE PROTECTION									
-16-03 Main Deck Cargo C Compartment Smoke Detection Systems (777F)	1	0	(M)(O) May be inoperative provided procedures are established and used to verify the main deck compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits. NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.						
-16-03-01									
Detectors C	46	38	One detector in each zone may be inoperative provided adjacent smoke detectors operate normally.						
-16-03-02									
Detector Zones C	8	-	(M)(O) May be inoperative provided: a) All detectors in a loaded zone operate normally, and b) Procedures are established and used to verify the associated compartment zone remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits. NOTE: Operator MELs must define which items are approved for inclusion in the fly away						
			kits and which materials can be used as ballast.						
-16-04 Cargo Smoke Detection (CSD) System Controller (777F)									
-16-04-01 CSD Controller Power C Bus	2	1							
			(Continued)						

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26 FIR	E PROTECTION				THE THE WAY OF THE
			ļ		
-16-04	Cargo Smoke Detection (CSD) System Controller (777F) (Cont'd)				
-16-04-0)2				
	CSD Controller Channels	С	2	1	One may be inoperative provided warning electronics system channels operate normally.
-16-04-0					
	CSD Controller Area Network Bus	С	8	4	
-17-01	Wheel Well Fire Detection System				
-17-01A		С	1	0	May be inoperative provided BTMS operates normally.
					NOTE: Avoid the possibility of retracting an overheated wheel by monitoring brake temperature indications.
-17-01B		С	1	0	(M)(O) May be inoperative provided an accepted procedure is used to ensure brakes are cool before engine start.
					NOTE 1: Avoid the possibility of retracting an overheated wheel by leaving landing gear extended for ten minutes after takeoff.
					NOTE 2: In case of engine failure after V1, landing gear should be retracted until takeoff obstacles are cleared.
-18-01	Wing Duct Leak Detector Loops	С	4	2	One per side may be inoperative.

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26 FIR	E PROTECTION				4. REMARKS OR EXCEPTIONS					
-18-02	Body Duct Leak Detector Loops	С	2	1	One may be inoperative provided both ASG cards in the opposite cardfile operate normally.					
-18-03	Strut Overheat Detector Loops	С	4	2	One per side may be inoperative.					
-18-04	Engine Fan Case Overheat Detection Systems									
-18-04-0	01									
	PW & GE	С	2	1	 One may be inoperative provided: a) Associated engine anti-ice selector remains OFF, b) Airplane is not operated in known or forecast icing conditions, and c) Flight remains within 120 minutes of landing at a suitable airport. 					
-18-04-0		_	_							
	RR	С	2	1	One may be inoperative provided one engine overheat circuit operates normally on the associated engine.					
-19-01	E/E Cooling Smoke Detector Channels	С	2	1						
-19-02	Equipment Cooling Smoke Detectors (777F)									
-19-02-0										
	Supply Smoke Detector	С	1	0	 May be inoperative provided: a) Equipment cooling vent fan operates normally, and b) Equipment cooling exhaust smoke detector operates normally. 					
					(Continued)					

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NUMBE	RS				4. REMARKS OR EXCEPTIONS					
26 FIRI	E PROTECTION									
-19-02	Equipment Cooling Smoke Detectors (777F) (Cont'd)									
-19-02-0)2									
	Exhaust Smoke Detector	С	1	0	 (M) May be inoperative provided: a) Equipment cooling vent fan is deactivated, b) Equipment cooling supply smoke detector operates normally, and c) For ground operations with OAT 30 degrees C or higher, both packs are selected on or airplane is supplied with conditioned air. 					
-21-01	Fire BTL DISCH Lights (Engine, APU, Cargo)	С	4	0						
-21-02	Fire Extinguishing Squib Test System	С	1	0	(M) May be inoperative provided squib electrical continuity is verified once each flight day.					
-21-02-0)1									
	Cargo Squib Test System	С	1	0	 (M)(O) May be inoperative provided: a) Procedures are established and used to verify lower cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, and b) For LLAR installed, LLAR is deactivated closed. 					
					NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.					
					NOTE 2: These provisions are not intended to prohibit LLAR inspections by crewmembers.					
					(Continued)					

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NUMBE	RS				4. REMARKS OR EXCEPTIONS						
26 FIRI	E PROTECTION										
-21-02	Fire Extinguishing Squib Test System (Cont'd)										
-21-02-0	02										
***	Lower Lobe Attendant Rest (LLAR) Squib										
	Test System										
-21-02-0)2A	С	1	0	(M) May be inoperative provided squib electrical continuity is verified once each flight day using LLAR Smoke Test switch.						
-21-02-0)2B	С	1	0	(M)(O) May be inoperative provided LLAR is deactivated closed.						
					NOTE: These provisions are not intended to prohibit LLAR inspections by crewmembers.						
-22-01	APU Fire Extinguisher System	С	1	0	(O) May be inoperative provided: a) Other procedures do not require use of APU,						
					b) APU selector switch remains in the OFF position, andc) Flight remains within 180 minutes of						
					landing at a suitable airport.						
-22-02	APU Auto Discharge	С	1	0	(M) May be inoperative provided APU is monitored during APU ground operations for fire warning.						

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SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH								
NUMBERS			4. REMARKS OR EXCEPTIONS								
6 FIRE PROTECTION											
23-01 Lower Cargo Compartment Fire Extinguisher Bottles											
23-01-01			(0) Maria de la constitución de l								
Without LLAR C Installed	-	0	(O) May be inoperative provided procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits.								
			NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.								
23-01-02 With LLAR Installed C		0	 (M)(O) May be inoperative provided: a) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, and b) LLAR is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit LLAR inspections by crewmembers. (Continued) 								

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NUMBE	:RS				4. REM	MARKS OR EXCE	PTIONS		
26 FIRI	E PROTECTION								
-23-01	Lower Cargo Compartment Fire Extinguisher Bottles (Cont'd)								
-23-01-0	03								
	Metered Bottles	С	-	1	a) Bob Mc) As d) As e) As ar	by be inoperative of the state	operate nor operates no operates no object to deactivate deactivat	rmally, rd, ed, and ustments	
-23-01-0	04								
-23-01-(Bottle Pressure Switches	C	-	0	a) As b) As	e inoperative pro ssociated bottle is ssociated bottle s erified operating n eparture.	s verified ful quib firing c	ircuit is	

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26 FIRE PROTECTION			4. F	REMARKS OR EXCEPTIO	NS					
20 1 112 1 110 120 110 11										
-23-02 Lower Cargo Compartment Fire Extinguisher Flow Valves (Forward or Aft)										
-23-02A C	2	1	a) b) c) d) NOTE	verify the associated carge compartment remains en only ballast, empty cargo equipment (ballast may bulder), or fly away kits, a For LLAR installed and a flow valve inoperative, LL deactivated closed. 1: Operator MELs must de items are approved for ifly away kits and which be used as ballast. 2: These provisions are no prohibit LLAR inspection crewmembers.	capped, uib electrical nd stowed, led and used to go hipty or contains handling lee loaded in lind ft compartment LAR is efine which inclusion in the materials can ot intended to					

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SYSTEM & ITEM SEQUENCE	1.	۷.		NUMBER REQUIRED FOR DISPATCH				
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26 FIRE PROTECTION								
-23-02 Lower Cargo Compartment Fire Extinguisher Flow Valves (Forward or Aft) (Cont'd)								
-23-02B	C	2	0	 (M)(O) May be inoperative provided: a) Procedures are established and used to verify cargo compartments remain empty or contain only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, and b) For LLAR installed, LLAR is deactivated closed. NOTE 1: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast. NOTE 2: These provisions are not intended to prohibit LLAR inspections by crewmembers. 				
-24-01 Lavatory Fire Extinguisher Systems								
-24-01-01								
Passenger								
-24-01-01A	С	-	•	May be inoperative for each lavatory provided associated lavatory smoke detection system operates normally. (Continued)				

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26 FIR	E PROTECTION				
-24-01	Lavatory Fire Extinguisher Systems (Cont'd)				
-24-01-0	01 Passenger (Cont'd)				
-24-01-0	01B	С	-	-	 (M)(O) May be inoperative for each lavatory provided associated: a) Lavatory waste container is empty, b) Lavatory door is locked closed and placarded, INOPERATIVE – DO NOT ENTER, and c) Lavatory is used only by crewmembers. NOTE: These provisions are not intended to prohibit lavatory use or inspections by crewmembers.
-24-01-0	02				
	777F	D	1	0	
-25-01 ***	Lower Lobe Attendant Rest (LLAR) Fire Extinguisher Bottle	С	1	0	 (M)(O) May be inoperative provided: a) LLAR shutoff valve is deactivated closed, and b) LLAR is deactivated closed. NOTE: These provisions are not intended to prohibit LLAR inspections by crewmembers.

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oe FID	E PROTECTION				4. REMARKS OR EXCEPTIONS
20 FIR	EPROTECTION		ļ		
-26-01	Portable Fire Extinguishers	D	-	-	(M) Any in excess of those required by 14 CFR may be inoperative or missing provided: a) The inoperative fire extinguisher is tagged inoperative, removed from the installation location, and placed out of sight so it can not be mistaken for a functional unit, and b) Required distribution is maintained.
-27-01 ***	Main Deck Cargo Fire Suppression System (FSS) (STC ST02375LA)	С	1	0	(M) May be inoperative.
-27-01-	01				
	Fire Control Hub	С	1	0	(M) May be inoperative provided FSS is considered inoperative.
-27-01-	02				
	Fire Control Panel	С	1	0	(M) May be inoperative provided surfactant tank and argon tank capacities are verified by an alternative method.
-27-01-	02-01 Surfactant Tank – Quantity Indication				
-27-01-	02-01A	С	1	0	(M) May be inoperative provided FSS is considered to have reduced capability.
-27-01-	02-01B	С	1	0	(M) May be inoperative provided FCP status light is operative.
-27-01-	02-01C	С	1	0	(M) May be inoperative provided surfactant level is verified once each flight day.
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26 FIRE PROTECTION			4. REMARKS OR EXCEPTIONS					
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-27-01 Main Deck Cargo Fire *** Suppression System (FSS) (STC ST02375LA) (Cont'd)	С	1	0	(M) May be inoperative.				
-27-01-02								
Fire Control Panel (Cont'd)								
-27-01-02-02 Inert Gas Cylinder (Argon) Pressure Indication-Electrical Function								
-27-01-02-02A	С	1	0	(M) Electrical function may be inoperative provided FSS is considered inoperative.				
-27-01-02-02B	С	1	0	(M) Electrical function may be inoperative provided: a) Mechanical indicator is operative, and b) Pressure is verified once each flight day.				
-27-01-03								
Fire Control Unit	С	13	0	May be inoperative provided FSS is considered inoperative for the affected position.				
-27-01-04		4-						
Fire Detection Unit	С	47	0	May be inoperative provided FSS is Considered inoperative for the affected position.				
				(Continued)				

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26 FIRE	E PROTECTION				ii i i i i i i i i i i i i i i i i i i					
20										
27-01 ***	Main Deck Cargo Fire Suppression System (FSS) (STC ST02375LA) (Cont'd)									
-27-01-0)5									
	Storage and Release System									
-27-01-0	05-01									
	Surfactant Tank	С	1	0	(M) May be inoperative provided FSS is considered to have reduced capability.					
-27-01-0	05-02 Inert Gas Cylinder (Argon) Pressure Indication – Mechanical Indicator									
-27-01-0	05-02A	С	1	0	(M) May be inoperative provided FSS is considered inoperative.					
-27-01-0	05-02B	С	1	0	(M) May be inoperative provided FSS is considered inoperative for affected position.					
-27-01-0	05-03									
	Penetrator Modules	С	13	0	May be inoperative provided FSS is considered inoperative for affected position.					
-27-01-0	06									
-	Lower Forward Instrument Panel FSS DISCH Annunciator	С	2	0	May be inoperative.					

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Z/ FLIC	GHT CONTROLS		İ						
-00-01	Flight Controls Synoptic Display	С	1	0					
-02-01	Bank Angle Protection								
-02-01-0		•							
	Without Standby Attitude Indicator P/N S231W120-4 or Equivalent Installed	С	1	0	May be inoperative provided flight is conducted in day VMC only.				
-02-01-0	02								
	With Standby Attitude Indicator P/N S231W120-4 or Equivalent Installed	С	1	0					
-02-02	Primary Flight Computer (PFC) Lanes	С	9	7					
-02-03	Primary Flight	Α	3	2	(M) One may be inoperative deactivated				
	Computer (PFC) Channels				provided: a) Operations are limited to three flights before repairs are made, and b) Approach minimums do not require its use.				
-02-04	PFCS Interface	С	1	0	(M) May be inoperative provided landing gear truck tilt pressure is verified to be normal before each departure.				
-02-05	Actuator Pressure Sensors	В	7	6	One flaperon or rudder sensor may be inoperative.				

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ENCE			3.	NUMBER REQUIRED FOR DISPATCH
EKS				4. REMARKS OR EXCEPTIONS
GHT CONTROLS				
Flight Control Hydraulic Shutoff Valve Systems	С	6	3	(M) May be inoperative provided the associated valve is deactivated open.
Item Moved				Dispatch relief for this equipment moved to item 27-02-06.
Thrust Asymmetry Compensation (TAC) Function (Except -200LR/GE90-115B and 777F/GE90-115B)	С	1	0	
Flap/Slat Control Lanes	С	2	1	(M) One may be inoperative provided: a) Flap lever control position sensor is verified to operate normally, and b) Alternate control is verified to operate normally before each departure.
Flap Secondary Control	С	1	0	(M) May be inoperative provided Slat Secondary Control is verified to operate normally.
Slat Secondary Control	С	1	0	(M) May be inoperative provided Flap Secondary Control is verified to operate normally.
Aileron Trim System	С	1	0	(M)(O) May be inoperative deactivated provided: a) Aileron trim system is verified to be centered before departure, and b) Autopilot roll modes operate normally.
Control Wheel Position Transducers	С	6	5	
	AFT: BOEING B- EM & ITEM ERS GHT CONTROLS Flight Control Hydraulic Shutoff Valve Systems Item Moved Thrust Asymmetry Compensation (TAC) Function (Except -200LR/GE90-115B and 777F/GE90-115B) Flap/Slat Control Lanes Flap Secondary Control Slat Secondary Control Aileron Trim System Control Wheel	AFT: BOEING B-777 IM & ITEM ERS GHT CONTROLS Flight Control C Hydraulic Shutoff Valve Systems Item Moved Thrust Asymmetry C Compensation (TAC) Function (Except -200LR/GE90-115B and 777F/GE90-115B) Flap/Slat Control C Lanes Flap Secondary C Control Slat Secondary C Control Aileron Trim System C Control Wheel C	BOEING B-777 IM & ITEM	AFT: BOEING B-777 IM & ITEM

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SYSTEM & ITEM	2.	NUME	BER INSTALLED				
SEQUENCE TIEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH				
27 FLIGHT CONTROLS	_		4. REMARKS OR EXCEPTIONS				
21 FLIGHT CONTROLS							
-11-03 Aileron Power Control Units (PCUs)							
-11-03-01							
Passenger (With A PRRs 61384-15 and 62200 or Equivalent Installed)	4	3	 (M) One may be inoperative provided: a) Inoperative PCU is deactivated in the bypass mode, b) Inoperative PCU blocking mode is verified to operate normally, c) Ailerons are verified to operate normally, and d) Repairs are made within three flight days. 				
-11-03-02 777F A	4	3	 (M)(O) One may be inoperative provided: a) Inoperative PCU is deactivated in the bypass mode, b) Inoperative PCU blocking mode is verified to operate normally, c) Ailerons are verified to operate normally, d) Appropriate performance adjustments are applied, and e) Repairs are made within three flight days. 				
-11-04 Flaperon Power Control Units (PCUs)							
-11-04-01 Passenger (With A PRRs 61384-15 and 62200, or Equivalent Installed)	4	3	 (M) One may be inoperative provided: a) Inoperative PCU is deactivated in the bypass mode, b) Flaperons are verified to operate normally, and c) Repairs are made within three flight days. (Continued) 				

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SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
Z/ FLIC	GHT CONTROLS				
-11-04	Flaperon Power Control Units (PCUs) (Cont'd)				
-11-04-0	02				
	777F	Α	4	3	 (M) One may be inoperative provided: a) Inoperative PCU is deactivated in the bypass mode, b) Flaperons are verified to operate normally, and c) Repairs are made within three flight days.
-21-01	Rudder Trim System				
-21-01-0	01				
	Rudder Trim Control High Rate Function	С	1	0	
-21-01-0	02				
	Rudder MANUAL TRIM CANCEL Switch	С	1	0	
-21-02	Rudder Trim Indicator	С	1	0	(O) May be inoperative provided rudder trim is verified centered before each departure.
-31-01	Control Column Position Transducers	С	6	5	
-32-01	Stall Warning Systems	С	2	1	
-32-01-0	01				
	Stick Shakers	С	2	1	

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	AL AVIATION ADMINIS				MASTER MINIMUM EQUIPMENT LIST
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	DOLINO D	-111	T		DATE: 06/13/2012 27-5
SYSTE	11 - 11	1.	2.		BER INSTALLED
SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
27 FLI	GHT CONTROLS				4. REMARKS OR EXCEPTIONS
-41-01	Control Wheel Pitch Trim Switches	С	2	1	
-41-02	Alternate Pitch Trim Position Switches	С	6	5	One may be inoperative provided both control wheel pitch trim switches operate normally.
-41-03	Stabilizer Trim Rate Solenoid Valves	С	2	1	
-48-01	STAB Position Indicators	С	2	1	(O) One may be inoperative provided it is blanked or covered.
-48-02	Stabilizer Position Transducer Modules	С	3	2	
-48-03 ***	Nose Gear Pressure Switch	С	1	0	(O) May be inoperative provided stabilizer trim position is verified to be properly set before each departure.
-48-04 ***	Nose Gear Pressure Transducer	С	1	0	(O) May be inoperative provided stabilizer trim position is verified to be properly set before each departure.
-51-01	Inboard Flap, Outboard Support Mechanism Springs (No. 3 & No. 6 Supports)	Α	4	2	 (M) One may be broken or missing on each support provided: a) Broken springs are removed, b) Remaining spring on each support is verified in place and not broken before each departure, and c) Operations are limited to fifteen departures before repairs are made.
-59-01	Flap/Slat Skew Sensors	С	28	14	
-61-01	Speedbrake Lever Position Transducers	С	4	3	

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AIRCRA	AFT: BOEING B-	777			REVISION NO: 18b PAGE:				
	DOLING D	, , ,			DATE: 06/13/2012 27-6				
SYSTE	M 0	1.	2.	. NUMBER INSTALLED					
SEQUE	NCE			3.	NUMBER REQUIRED FOR DISPATCH				
NUMBE	ERS				4. REMARKS OR EXCEPTIONS				
27 FLIC	GHT CONTROLS								
			<u>.</u>						
-61-02	Spoiler Auxiliary Retract Device (SARD) (-300/-300ER)	A	2	1	One may be inoperative provided: a) Associated passenger entry door 3 is considered inoperative, and b) Repairs are made within one flight day.				
-61-03	Spoiler Power Control Units (PCUs)								
-61-03-0	01								
	Passenger (With PRRs 61384-15 and 62200, or Equivalent Installed)	A	14	12	 (M)(O) One symmetrical pair (except 4/11) may be inoperative provided: a) Symmetrical pair is deactivated in the retracted position, b) Remaining spoilers are verified to operate normally, c) Appropriate performance adjustments are applied, and d) Repairs are made within three flight days. 				
-61-03-0	02								
	777F	Α	14	12	 (M)(O) One symmetrical pair (except 4/11) may be inoperative provided: a) Symmetrical pair is deactivated in the retracted position, b) Remaining spoilers are verified to operate normally, c) Appropriate performance adjustments are applied, and d) Repairs are made within three flight days. 				
-62-01	Automatic Speedbrake Function	С	1	0	(M)(O) May be inoperative deactivated provided: a) Landing gear truck tilt pressure is verified to be normal before each flight, and b) Appropriate performance adjustments are applied.				

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BOEING B-7	///			DATE: 05/31/2013 28-1				
SYSTEM &	1.	2.	NUME	BER INSTALLED				
SEQUENCE TEM			3.	NUMBER REQUIRED FOR DISPATCH				
NUMBERS				4. REMARKS OR EXCEPTIONS				
28 FUEL								
-11-01 Sump Drain Valves								
-11-01-01								
Surge Tanks	С	2	0	(M) May be inoperative provided there is no evidence of leakage.				
-11-01-02								
Main and Center Tanks	С	4	3	 (M) One may be inoperative provided: a) There is no evidence of leakage, and b) Alternate procedures are used to prevent water accumulation in associated tank. 				
-11-01-03								
*** Auxiliary Tank(s)								
-11-01-03A	С	-	0	(M) May be inoperative provided: a) There is no evidence of leakage, and b) Alternate procedures are used to prevent water accumulation in associated tank(s).				
-11-01-03B	D	-	0	May be inoperative provided all auxiliary tanks remain empty.				
-14-01 Auxiliary Tank Fuel *** Vent Valves								
-14-01A	С	2	0	 (M)(O) May be inoperative provided: a) Inoperative valve is deactivated open, b) Auxiliary tank fuel pump transfer system operates normally, c) Auxiliary tank fuel quantity indication operates normally, and d) Maximum zero fuel weight limit is reduced by the weight of auxiliary tank fuel. 				
-14-01B	D	2	0	May be inoperative provided all auxiliary tanks remain empty.				

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FEDERAL AVIATION ADMINIST	TRATI	ON		WASTER WINNING EQUI WERT EIGT
AIRCRAFT:	777			REVISION NO: 19 PAGE:
BOEING B-	///			DATE: 05/31/2013 28-2
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
28 FUEL				
-14-02 Auxiliary Tank Refuel *** Isolation Valves				
-14-02A	С	2	1	
-14-02B	D	2	0	May be inoperative provided all auxiliary tanks remain empty.
-14-03 Auxiliary Tank Refuel *** Transfer Valve(s)				
-14-03A	С	-	0	 (M)(O) May be inoperative provided: a) Inoperative valve is deactivated closed, b) Auxiliary tank fuel pump transfer system operates normally, c) Auxiliary tank fuel quantity indication operates normally, and d) Maximum zero fuel weight limit is reduced by the weight of the associated auxiliary tank fuel.
-14-03B	D	-	0	May be inoperative provided all auxiliary tanks remain empty.
-14-04 Auxiliary Tank Fuel *** Pump(s)				
-14-04A	С	-	0	 (M)(O) May be inoperative provided: a) Inoperative auxiliary tank fuel pump is deactivated, b) Auxiliary tank fuel backup transfer system operates normally, c) Auxiliary tank fuel quantity indication operates normally, and d) Maximum zero fuel weight limit is reduced by the weight of the associated auxiliary tank fuel.
-14-04B	D	-	0	(M) May be inoperative provided: a) Inoperative auxiliary tank fuel pump is deactivated, and b) All auxiliary tanks remain empty.

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1.	2.	NUME	BER INSTALLED
		3.	NUMBER REQUIRED FOR DISPATCH
	=		4. REMARKS OR EXCEPTIONS
С	-	0	 (M)(O) May be inoperative provided: a) Inoperative valve is deactivated closed, b) Associated auxiliary tank fuel pump is deactivated, c) Auxiliary tank fuel backup transfer system operates normally, d) Auxiliary tank fuel quantity indication operates normally, and e) Maximum zero fuel weight limit is reduced by the weight of the associated auxiliary tank fuel.
D	-	0	 (M) May be inoperative provided: a) Inoperative valve is deactivated closed, b) Associated auxiliary tank fuel pump is deactivated, and c) All auxiliary tanks remain empty.
С	2	1	(M)(O) One may be inoperative provided: a) Inoperative valve is deactivated closed, and b) Maximum zero fuel weight limit is reduced by the weight of auxiliary tank fuel.
D	2	0	(M) May be inoperative provided: a) Inoperative valve is deactivated closed, and b) All auxiliary tanks remain empty.
	1. C	1. 2. C -	1. 2. NUME 3.

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SYSTEM &	1. 2.	NUM	BER INSTALLED
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
			4. REMARKS OR EXCEPTIONS
28 FUEL			
-14-07 Auxiliary Tank Fuel *** Backup Transfer System			
-14-07A (G 1	0	 (M)(O) May be inoperative provided: a) Associated auxiliary tank fuel backup transfer PRSOV is deactivated, b) Auxiliary tank fuel vent valves operate normally, c) Auxiliary tank fuel pump transfer system operates normally, and d) Maximum zero fuel weight limit is reduced by the weight of auxiliary tank fuel.
-14-07B	0 1	0	May be inoperative provided: a) Auxiliary tank fuel vent valves operate normally, and b) All auxiliary tanks remain empty.
-14-08 Auxiliary Tank Fuel *** Pressure Hold Mode			
-14-08A (0 1	0	 (O) May be inoperative provided: a) There is no evidence of fuel leaking from the drain mast, b) Auxiliary tank fuel pump transfer system operates normally, and c) Maximum zero fuel weight limit is reduced by the weight of auxiliary tank fuel.
-14-08B	0 1	0	May be inoperative provided all auxiliary tanks remain empty.

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	1.	2.	NUME	BER INSTALLED
SYSTEM & ITEM SEQUENCE				NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
28 FUEL				
-21-01 Pressure Fueling System				
-21-01-01 Refuel Valves				
-21-01-01A	С	6	0	(M) May be inoperative closed provided alternate procedures are used for refueling.
-21-01-01B	С	6	5	 (M)(O) One main tank refuel valve may be inoperative open provided: a) Fuel jettison system is deactivated, b) Alternate procedures are used for refueling, and c) Appropriate performance adjustments are applied.
-21-01-02 Integrated Refuel Panel				
-21-01-02-01 Fuel Quantity Indicators	С	4	0	(M) May be inoperative provided alternate procedures are used for refueling.
-21-01-02-02				
	С	1	0	((M) May be inoperative provided alternate procedures are used for refueling.
				NOTE: Any function which operates normally may be used.
-21-01-02-03 Refuel Valve Lights	С	6	0	(M) May be inoperative provided: a) Overfill function operates normally, and b) Associated refuel valve is verified closed after each refueling. (Continued)
				(Continued)

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SYSTE	м &	1.	2.	NUME	BER INSTALLED
SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	KS				4. REMARKS OR EXCEPTIONS
28 FUE	ïL				
-21-01	Pressure Fueling System (Cont'd)				
-21-01-0	02 Integrated Refuel Panel (Cont'd)				
-21-01-0	02-04 Overfill Function (Normal/Reset Switch, Light and Test)	С	1	0	 (M) May be inoperative provided: a) Refuel valve lights operate normally, and b) Verify refuel valves close when appropriate during refueling.
-21-01-0	02-05 Defuel Valve Function	С	1	0	May be inoperative provided defuel valve is
	(Switch and Open Light)				considered inoperative.
-21-01-0	02-06				
	Power Switch - BATT Position	С	1	0	
-21-01-0)2-07				
	Test Functions (Indication and System)	С	2	0	
-21-02 ***	Auxiliary Tank Fuel Quantity Indication (Auxiliary Refuel Panel)				
-21-02A		С	1	0	(M) May be inoperative provided alternate procedures are used for refueling.
-21-02B		D	1	0	May be inoperative provided all auxiliary tanks remain empty.

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1.	2.	NUME	BER INSTALLED			
SYSTEM & ITEM SEQUENCE		3.	NUMBER REQUIRED FOR DISPATCH			
NUMBERS			4. REMARKS OR EXCEPTIONS			
28 FUEL						
-22-01 Main Tank Fuel C Pumps	4	3	 (M) One may be inoperative deactivated provided: a) Both main tank quantity indications operate normally, and b) Flight remains within 120 minutes of landing at a suitable airport. 			
-22-02 Center Tank Fuel Override/Jettison Pumps						
-22-02A C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative pump is deactivated, b) Center tank quantity indication operates normally, c) With center tank fueled, fuel quantity remaining in main wing tanks is adequate to reach a suitable airport if remaining center pump fails at any time, and d) Center tank fuel is accounted for in the airplane weight and balance in the event center tank fuel cannot be used. 			
-22-02B C	2	0	 (M)(O) May be inoperative provided: a) Pumps are deactivated. b) Center tank quantity indication operates normally, and c) Center tank fuel is considered unusable and is accounted for in the airplane weight and balance. 			
-22-03 Crossfeed Valves C	2	1	NOTE: AFM fuel loading and usage limitations are for usable fuel. (M)(O) One may be inoperative deactivated closed provided remaining valve is verified to operate normally during the last hour of cruise.			

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SEQUE	INCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH				
NUMBE	:K5				4. REMARKS OR EXCEPTIONS				
28 FUE	≣L								
-22-04	Fuel Scavenge Systems	С	2	0	(O) May be inoperative provided: a) Center tank quantity indication operates normally, and b) Appropriate amount of center tank fuel is considered unusable and is accounted for in the airplane weight and balance.				
					NOTE: AFM fuel loading and usage limitations are for usable fuel.				
-22-05	Fuel Crossfeed VALVE Lights	С	2	0					
-22-06	Fuel Shutoff Valve Battery	С	1	0					
-22-07	Fuel Scavenge Shutoff Valves (Without PRR 62777-79S or Equivalent Installed)								
-22-07	A	С	4	3	(M) One valve may be inoperative open provided: a) Fuel quantity system operates normally, and b) Remaining valve on that side is verified to operate normally.				
-22-07E	3	С	4	0	(M) May be inoperative open provided: a) Center tank remains empty, and b) Center tank quantity indication operates normally.				
-22-08 ***	Auxiliary (AUX) Fuel Switch	D	1	0	May be inoperative OFF provided all auxiliary tanks remain empty.				
-25-01	APU DC Fuel Pump	С	1	0	(M) May be inoperative deactivated.				

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SYSTE	M & ITEM	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	INCE			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
28 FUE	±L				
-25-02	APU Fuel Shutoff Valve	С	1	0	 (M)(O) May be inoperative provided: a) Valve is deactivated closed, b) Other procedures do not require the use of the APU, and c) Flight remains within 180 minutes of landing at a suitable airport.
-25-03	APU Fuel Isolation Valve	С	1	0	(M) May be inoperative deactivated closed.
-26-01	Defuel Valve	С	1	0	(M) May be inoperative secured closed.
-31-01	Fuel Jettison System				
-31-01-(1 1				
	Without PRR 62777-79S or Equivalent Installed	С	1	0	 (M)(O) May be inoperative provided: a) Jettison system is deactivated, b) Jettison nozzle valves are secured closed, and c) Appropriate performance adjustments are applied.
-31-01-0					
	With PRR 62777-79S or Equivalent Installed	С	1	0	 (M)(O) May be inoperative provided: d) Jettison system is deactivated, a) Jettison nozzle valves are secured closed, b) Fuel scavenge system is considered inoperative, and c) Appropriate performance adjustments are applied.

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NUME	
NUME	DATE: 05/31/2013 28-10
NUME	
	BER INSTALLED
3.	NUMBER REQUIRED FOR DISPATCH
	4. REMARKS OR EXCEPTIONS
0	(M) May be inoperative provided inoperative valve is secured closed.
0	 (M)(O) May be inoperative provided: a) Inoperative valve is secured closed, b) Fuel jettison system is deactivated, and c) Appropriate performance adjustments are applied.
0	(M)(O) May be inoperative provided: a) Inoperative valve is secured closed, and b) Appropriate gross weight and center-of- gravity adjustments are applied.
0	 (M)(O) May be inoperative provided: a) Inoperative valve is secured closed, b) Fuel jettison system is deactivated, c) Fuel scavenge system is considered inoperative, and d) Appropriate performance adjustments are applied. (Continued)
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SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
28 FUEL			
-31-02 Center Tank Jettison Isolation Valves (Cont'd)			
-31-02-03 -200ER/-200LR/-300/ -300ER/777F (With PRR 62777-79S or Equivalent Installed) (Cont'd)			
-31-02-03B C	2	0	(M)(O) May be inoperative provided: a) Inoperative valve is secured closed, and b) Appropriate gross weight and center-of-gravity adjustments are applied.
-31-03 Main Tanks Jettison Pumps			
-31-03-01			
Without C PRR 62777-79S or Equivalent Installed	2	0	(M)(O) May be inoperative provided: a) Inoperative pump is deactivated, and b) Appropriate performance adjustments are applied.
-31-03-02			
With PRR 62777-79S C or Equivalent Installed	2	0	 (M)(O) May be inoperative provided: a) Inoperative pump is deactivated, b) Fuel scavenge system is considered inoperative, and c) Appropriate performance adjustments are applied.

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BOEING B-	111			DATE: 05/31/2013 28-12
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
		-		4. REMARKS OR EXCEPTIONS
28 FUEL				
-31-04 Fuel Jettison Nozzle Valves				
-31-04-01 Without PRR 62777-79S or Equivalent Installed				
-31-04-01A	С	2	1	(M) One may be inoperative secured closed.
-31-04-01B	С	2	0	 (M)(O) May be inoperative provided: a) Both jettison nozzle valves are secured closed, b) Jettison system is deactivated, and c) Appropriate performance penalties are applied.
-31-04-02 With PRR 62777-79S or Equivalent Installed				
-31-04-02A	С	2	1	(M) One may be inoperative secured closed.
-31-04-02B	С	2	0	 (M)(O) May be inoperative provided: a) Both jettison nozzle valves are secured closed, b) Jettison system is deactivated, c) Fuel scavenge system is considered inoperative, and d) Appropriate performance penalties are applied.
-40-01 Fuel Synoptic Display	С	1	0	May be inoperative provided individual fuel quantity indications required for dispatch operate normally.

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SYSTEM & 1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
28 FUEL			
-41-01 Fuel Quantity Indications (Flight Deck)			
-41-01-01			
Center Tank B	1	0	 (M)(O) May be inoperative provided: a) Main tank fuel quantity indications operate normally, b) Fuel quantity in center tank is verified by an alternate procedure, c) All pumps for the center tank operate normally, d) Fuel flow indications operate normally, e) FMC FUEL is initialized with the known total fuel quantity, f) Flight remains within 180 minutes of landing at a suitable airport, and g) For -200ER, -200LR, 777F, -300 and -300ER, appropriate gross weight and center-of-gravity adjustments are applied.
-41-01-02 Main Tanks B	2	1	 (M)(O) One may be inoperative provided: a) Center tank fuel quantity indication operates normally, b) Fuel quantity in associated tank is verified by an alternate procedure, c) All pumps for the associated tank operate normally, d) Fuel flow indications operate normally, e) FMC FUEL is initialized with the known total fuel quantity, f) Flight remains within 180 minutes of landing at a suitable airport, and g) For -200ER, -200LR, 777F, -300 and -300ER, appropriate gross weight and center-of-gravity adjustments are applied. (Continued)

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	50210 5				DATE: 05/31/2013 28-14
SYSTE	M &	1.	2.	NUME	BER INSTALLED
SEQUE	INCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	:K5				4. REMARKS OR EXCEPTIONS
28 FUE	ΞL				
-41-01	Fuel Quantity Indications (Flight Deck) (Cont'd)				
-41-01-	03				
***	Auxiliary Tank(s)	В	1	0	 (M)(O) May be inoperative provided: a) Center and main tank fuel quantity indications operate normally, b) Fuel quantity in auxiliary tank(s) is verified by an alternate procedure, c) Auxiliary tank fuel pump transfer system operates normally, d) Auxiliary tank fuel backup transfer system operates normally, e) Fuel flow indications operate normally, f) FMC FUEL is initialized with the known total fuel quantity, g) Flight remains within 180 minutes of landing at a suitable airport, and h) Appropriate gross weight and center-of-gravity adjustments are applied.
-41-02	Fuel Quantity Processor Input/Output (I/O) Channels	В	2	1	 (O) One channel may be inoperative provided: a) All flight deck fuel indications operate normally, b) Fuel flow indications operate normally, and c) FMC TOTALIZER FUEL quantity agrees with fuel quantity indications.
-41-03	Item Moved				Revision 17 moved dispatch relief for this equipment to item 28-21-1.

U.S. DE	EPARTMENT OF TRAN	SPOR	TATIO	N	
FEDER	AL AVIATION ADMINIS	STRATI	ON		MASTER MINIMUM EQUIPMENT LIST
AIRCRA	AFT: BOEING B	s-777			REVISION NO: 19 PAGE:
			l <u>-</u>		DATE: 05/31/2013 28-15
SYSTE	11 - 11	1.	2.	_	BER INSTALLED
SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
28 FUE	L				
-41-04	Total Fuel Quantity Indication	С	1	0	 (O) May be inoperative provided: a) Fuel flow indications operate normally, b) FMC FUEL is initialized with the known total fuel quantity, and c) Flight remains within 180 minutes of landing at a suitable airport.
-42-01	Fuel Pump Low PRESS Lights	С	6	3	
-42-02 ***	Auxiliary Tank Fuel Pump Pressure Transducer(s)				
-42-02A		С	-	0	 (M)(O) May be inoperative provided: a) Associated auxiliary tank fuel pump is deactivated, b) Auxiliary tank fuel backup transfer system operates normally, c) Auxiliary tank fuel quantity indication operates normally, and d) Maximum zero fuel weight limit is reduced by the weight of the associated auxiliary tank fuel.
-42-02B	3	D	-	0	(M) May be inoperative provided: a) Associated auxiliary tank fuel pump is deactivated, and b) All auxiliary tanks remain empty.
-43-01	Fuel Temperature Indicating System	С	1	0	(O) May be inoperative provided Total Air Temperature (TAT) is used as an indication of fuel temperature.
-44-01	Measuring Sticks	С	-	0	May be inoperative provided fuel quantity is determined by other acceptable means.

U.S. DEPARTMENT OF TRANSP	ORTATIO	ON	
FEDERAL AVIATION ADMINISTR	ATION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-77	7	REVISION NO: 19 PAGE: DATE: 05/31/2013 28-16	
SYSTEM & SEQUENCE NUMBERS 28 FUEL	1. 2.		NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
-45-01 Auxiliary Tank Fuel *** Cell Pressure Transducer(s) -45-01-01	-	0	May be inoperative provided all auxiliary tanks remain empty.
	1	0	 (O) May be inoperative provided: a) Auxiliary tank fuel pump transfer system operates normally, b) Auxiliary tank fuel quantity indication operates normally, and c) Maximum zero fuel weight limit is reduced by the weight of the associated auxiliary tank fuel.
-45-01-02 *** Auxiliary Tank 2	2 1	0	
-45-01-03 *** Auxiliary Tank 3	2 1	0	

	EPARTMENT OF TRANS LAL AVIATION ADMINIST			N	MASTER MINIMUM EQUIPMENT LIST				
AIRCR				REVISION NO: 18b PAGE					
BOLINO B TTT					DATE: 06/13/2012 29-1				
SYSTE SEQUE NUMBE	ENCE ITEM	1.	2.		NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
29 HYI	DRAULIC POWER								
-11-01	Engine Driven Pumps (EDP) Depressurization Function)	С	2	1					
-11-02	Center System Primary Alternating Current Motor Pumps (ACMP)	С	2	1	(M) One may be inoperative provided: a) Inoperative center ACMP is deactivated, and b) Both center ADPs operate normally.				
-11-03	Center System Demand Air Driven Pumps (ADP)								
-11-03 <i>A</i>		C	2	1	 (M)(O) One may be inoperative selected OFF provided: a) Both center system ACMPs operate normally, b) Remaining ADP heater operates normally, c) Remaining ADP AUTO function operates normally, d) Associated pump is verified not running when selected OFF, e) APU is used as ADP air source during takeoff, and f) Appropriate performance adjustments are applied. (Continued) 				

U.S. DEPARTMENT OF TRANSPORTED			MASTER MINIMUM EQUIPMENT LIST				
AIRCRAFT: BOEING B-77		REVISION NO: 18b PAGE					
			DATE: 06/13/2012 29-2				
SYSTEM &	1. 2	. NUM	BER INSTALLED				
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH				
			4. REMARKS OR EXCEPTIONS				
29 HYDRAULIC POWER							
-11-03 Center System Demand Air Driven Pumps (ADP) (Cont'd)							
-11-03B	C 2	2 1	 (M)(O) One may be inoperative selected OFF provided: a) Both center system ACMPs operate normally, b) Associated pump is verified not running when selected OFF, c) Remaining ADP is selected ON for the entire flight, d) APU is used as ADP air source during takeoff, and e) Appropriate performance adjustments are applied. 				
-11-03-01 ADP Auto/Heater Function (-200/-200ER With PRR 61570 or SB 777-29-0004 Incorporated, and -200LR/-300/ -300ER/777F)							
-11-03-01A	C 2	2 1	 (M)(O) One may be inoperative provided: a) Remaining ADP operates normally, b) Associated ADP ON and OFF selector positions are verified to operate normally, and c) Associated ADP is selected ON for the entire flight. (Continued) 				

U.S. DEPARTMENT OF TRANSPO	RTATIC)N	
FEDERAL AVIATION ADMINISTRA	TION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:			REVISION NO: 18b PAGE:
BOEING B-777			DATE: 06/13/2012 29-3
SYSTEM &	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
			4. REMARKS OR EXCEPTIONS
29 HYDRAULIC POWER			
-11-03 Center System Demand Air Driven Pumps (ADP) (Cont'd)			
-11-03-01			
ADP Auto/Heater Function (-200/-200ER With PRR 61570 or SB 777-29-0004 Incorporated, and -200LR/-300/ -300ER/777F) (Cont'd)			
-11-03-01B C	2	1	 (M)(O) One may be inoperative provided: a) Both center system ACMPs operate normally, b) Associated ADP ON and OFF selector positions are verified to operate normally, c) Associated ADP is selected ON for the entire flight, d) APU is used as ADP air source during takeoff, and e) Appropriate performance adjustments are applied.
-11-03-01C C	2	0	 (M)(O) May be inoperative provided: a) Both center system ACMPs operate normally, b) ADP ON and OFF selector positions are verified to operate normally for both pumps, c) One ADP is selected ON for the entire flight, d) APU is used as ADP air source during takeoff, and e) Appropriate performance adjustments are applied.

U.S. DE	EPARTMENT OF TRANS	SPOR ⁻	TATIO	N	MASTER MINIMUM EQUIPMENT LIST				
FEDER	AL AVIATION ADMINIS	ΓRΑΤΙ	ION						
AIRCRAFT: BOEING B-777					REVISION NO: 18b PAGE:				
	BOLING B-	, , ,	1		DATE: 06/13/2012 29-4				
SYSTE	M &	1.	2.	NUME	BER INSTALLED				
SEQUE	NCE ITEM			3. NUMBER REQUIRED FOR DISPATCH					
NUMBE	:RS				4. REMARKS OR EXCEPTIONS				
29 HYI	DRAULIC POWER								
-11-04	Demand Pump Selectors								
-11-04-0	01								
	Center System AUTO Position	С	2	0	May be inoperative provided associated demand ADP auto function is considered inoperative.				
-11-04-0	02								
	Left & Right System AUTO Position	С	2	0	 (O) May be inoperative provided: a) ON and OFF positions operate normally, and b) Associated pump selector is ON for takeoff and landing. 				
-11-04-0	03								
	ON Position	С	4	0	May be inoperative provided the AUTO and OFF positions for associated pump operate normally.				
-11-05	Hydraulic Interface Module (HYDIM) Cards	С	4	3	 (M) One may be inoperative provided: a) Inoperative card is in the HYDIM center right (HCR) card position, b) Individual center system pump pressure indications operate normally, and c) Center system demand ADP C1 auto function is considered inoperative. 				
-11-06	Center Hydraulic Isolation System	С	1	0	(M) May be inoperative deactivated open.				
-18-01	Reservoir Quantity Gage (Remote)	С	1	0					

U.S. DE	EPARTMENT OF TRANS	SPOR	TATIO	N	
FEDER	AL AVIATION ADMINIS	TRATI	ON		MASTER MINIMUM EQUIPMENT LIST
AIRCRA	777			REVISION NO: 18b PAGE:	
	BOEING B-	.111			DATE: 06/13/2012 29-5
SYSTE	M &	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	NCE TIEM			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
29 HYL	DRAULIC POWER				
-18-02	Hydraulic System Accumulators	С	-	0	
-18-02-0	01				
	Charging Valves	С	3	0	
-18-02-0					
	Charging Gages	С	3	0	
-21-01	RAT Heater System				
-21-01-0	01				
	-200/-200ER With PRR 61570 or SB 777-29-0004 Incorporated, and -200LR/-300/ -300ER/777F	A	1	0	May be inoperative provided repairs are made within three flight days.
-21-01-0	02				
	-200/-200ER Without PRR 61570 or SB 777-29-0004 Incorporated	A	1	0	 (O) May be inoperative provided: a) Both center system ACMPs operate normally, b) One ADP is selected ON for the entire flight. c) APU is used as ADP air source during takeoff, d) Appropriate performance adjustments are applied, and e) Repairs are made within three flight days.
-21-02	RAT UNLKD Light	С	1	0	
-30-01	Hydraulic Pump FAULT Lights	С	8	5	One in each system may be inoperative.

EPARTMENT OF TRANS	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
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AIRCRAFT:				REVISION NO: 18b PAGE:
BOEING B-	///			DATE: 06/13/2012 29-6
M &	1.	2.	NUME	BER INSTALLED
ENCE			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
DRAULIC POWER				
Hydraulic Synoptic Display	С	1	0	
Hydraulic System Pressure Transducers	С	3	0	May be inoperative provided all associated system pump pressure indications operate normally.
Pump Pressure Indication Systems				
01				
Left & Right Systems	С	4	2	 (M) One in each system may be inoperative provided: a) Associated system pressure transducer operates normally, and b) Associated pump operation is verified normal before each departure.
02				
Center System				
02A	С	4	3	(M) One may be inoperative provided: a) Associated system pressure transducer operates normally, and b) Associated pump operation is verified normal before each departure.
02B	С	4	3	One may be inoperative for an associated inoperative pump.
	AFT: BOEING B- EM & ENCE ERS DRAULIC POWER Hydraulic Synoptic Display Hydraulic System Pressure Transducers Pump Pressure Indication Systems 01 Left & Right Systems 02 Center System 02A	AFT: BOEING B-777 1. ITEM ENCE ERS DRAULIC POWER Hydraulic Synoptic C Display Hydraulic System C Pressure Transducers Pump Pressure Indication Systems 01 Left & Right Systems C 02 Center System 02A C	BOEING B-777 IM & ITEM	AFT: BOEING B-777 IM & ITEM

U.S. DEPARTMENT OF TRANSPORTATION									
FEDER	AL AVIATION ADMINIS	TRATI	ON		MASTER MINIMUM EQUIPMENT LIST				
AIRCR					REVISION NO: 18b PAGE:				
	BOEING B-	777			DATE: 06/13/2012 29-7				
		1.	2.	NUME	BER INSTALLED				
SYSTE SEQUE	11 - 11				NUMBER REQUIRED FOR DISPATCH				
NUMBE					4. REMARKS OR EXCEPTIONS				
29 HYI	DRAULIC POWER								
-32-01	Pump Temperature Indications								
-32-01-0	01 Left & Right Systems	С	4	2	 (M) One in each system may be inoperative provided: a) Associated pump pressure indications operate normally, and b) Associated pump operation is verified normal before each departure. 				
-32-01-0	02 Center System								
-32-01-0	02A	С	4	3	 (M) One may be inoperative provided: a) Associated pump pressure indications operate normally, and b) Associated pump operation is verified normal before each departure. 				
-32-01-0	02B	С	4	3	One may be inoperative for an associated inoperative pump.				
-33-01	Hydraulic Fluid Quantity Indications (Flight Deck)	С	3	1	 (M) Two may be inoperative provided: a) Reservoir level is verified normal before each departure, b) Associated system pressure indication operates normally, and c) For the center system indication inoperative, center hydraulic isolation system is deactivated. 				

	EPARTMENT OF TRANS AL AVIATION ADMINIS			N	MASTER MINIMUM EQUIPMENT LIST
AIRCR					REVISION NO: 18b PAGE: DATE: 06/13/2012 30-1
SYSTE	NA S	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	ENCE TIEM			3.	NUMBER REQUIRED FOR DISPATCH
30 ICE	AND RAIN PROTECTION	ON	-		4. REMARKS OR EXCEPTIONS
-11-01	Wing Anti-Ice Systems	С	2	0	 (M) May be inoperative provided: a) Associated valve is locked closed, b) Wing anti-ice control switch remains OFF, and c) Airplane is not operated in known or forecast icing conditions.
-11-02	Wing Anti-Ice Control (Card and Switch)	С	1	0	 (M) May be inoperative provided: a) Both wing anti-ice valves are locked closed, b) Wing anti-ice control switch remains OFF, and c) Airplane is not operated in known or forecast icing conditions.
-11-03	Wing Anti-Ice Indications (WAI)	С	2	0	
-21-01	Engine Anti-Ice Systems	C	2	1	 (M) One may be inoperative provided: a) Valve is locked closed, b) Associated engine anti-ice control switch remains OFF, c) Airplane is not operated in known or forecast icing conditions, and d) Flight remains within 120 minutes of landing at a suitable airport. (Continued)

U.S. DEPARTMENT OF TRANSPOR FEDERAL AVIATION ADMINISTRAT		N	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:	ION		REVISION NO: 18b PAGE:
BOEING B-777			DATE: 06/13/2012 30-2
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION			
-21-01 Engine Anti-Ice Systems (Cont'd)			
-21-01-01 PW and RR			
-21-01-01A C	2	1	 (M)(O) For operations at ambient temperature 38 degrees C or below, one may be inoperative provided: a) Valve is deactivated open using deactivation kit, b) Engine fan case overheat detection system operates normally, and c) Appropriate performance adjustments are applied.
-21-01-01B C	2	1	 (M)(O) For operations at ambient temperature 38 degrees C or below, one may be inoperative provided: a) Valve is electrically disconnected and verified open, b) Engine fan case overheat detection system operates normally, c) Associated EAI pressure sensor system operates normally, d) Associated EAI card operates normally, and e) Appropriate performance adjustments are applied. (Continued)

U.S. DEPARTMENT OF TRANSPOR FEDERAL AVIATION ADMINISTRAT		/1 \	MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT: BOEING B-777			REVISION NO: 18b PAGE:			
BOLING B-111			DATE: 06/13/2012 30-3			
SYSTEM & ITEM	2.		BER INSTALLED			
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS			
30 ICE AND RAIN PROTECTION			Name of an angle			
-21-01 Engine Anti-Ice Systems (Cont'd)						
-21-01-01 PW and RR (Cont'd)						
-21-01-01C A	2	1	 (M)(O) For operations at ambient temperature above 38 degrees C, one may be inoperative provided: a) Valve is deactivated open using deactivation kit, b) Engine fan case overheat detection system operates normally, c) Appropriate performance adjustments are applied, and d) Repairs are made within three flight days. 			
-21-01-01D A	2	1	 (M)(O) For operations at ambient temperature above 38 degrees C, one may be inoperative provided: a) Valve is electrically disconnected and verified open, b) Engine fan case overheat detection system operates normally, c) Associated EAI pressure sensor system operates normally, d) Associated EAI card operates normally, e) Appropriate performance adjustments are applied, and f) Repairs are made within three flight days. (Continued) 			

U.S. DEPARTMENT OF TRANSPOR	TATIO	N	
FEDERAL AVIATION ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 18b PAGE: DATE: 06/13/2012 30-4
1.	2.	NII IMD	ER INSTALLED
SYSTEM & ITEM SEQUENCE	۷.		NUMBER REQUIRED FOR DISPATCH
NUMBERS] 0. [4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION			
-21-01 Engine Anti-Ice Systems (Cont'd)			
GE			
-21-01-02A C	2	1	 (M)(O) For operations at ambient temperature 38 degrees C or below, one may be inoperative provided: a) Valve is deactivated open using deactivation kit, b) Engine fan case overheat detection system operates normally, c) Turbine case cooling air flow systems operate normally, d) Appropriate performance adjustments are applied, and e) Except for GE90-100 series, EECs must be operated in the normal mode.
-21-01-02B C	2	1	 (M)(O) For operations at ambient temperature 38 degrees C or below, one may be inoperative provided: a) Valve is electrically disconnected and verified open, b) Engine fan case overheat detection system operates normally, c) Associated EAI pressure sensor system operates normally, d) Associated EAI card operates normally, e) Turbine case cooling air flow systems operate normally, f) Appropriate performance adjustments are applied, and g) Except for GE90-100 series, EECs must be operated in the normal mode. (Continued)

U.S. DEPARTMENT OF TRANSPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTRAT	ION		
AIRCRAFT: BOEING B-777			REVISION NO: 18b PAGE:
	_		DATE: 06/13/2012 30-5
SYSTEM & 1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION			
-21-01 Engine Anti-Ice Systems (Cont'd)			
-21-01-02 GE (Cont'd)			
-21-01-02C A	2	1	 (M)(O) For operations at ambient temperature above 38 degrees C, one may be inoperative provided: a) Valve is deactivated open using deactivation kit, b) Engine fan case overheat detection system operates normally, c) Turbine case cooling air flow systems operate normally, and d) Appropriate performance adjustments are applied, e) Repairs are made within three flight days, and f) Except for GE90-100 series, EECs must be operated in the normal mode.
-21-01-02D A	2	1	 (M)(O) For operations at ambient temperature above 38 degrees C, one may be inoperative provided: a) Valve is electrically disconnected and verified open, b) Engine fan case overheat detection system operates normally, c) Associated EAI pressure sensor system operates normally, d) Associated EAI card operates normally, e) Turbine case cooling air flow systems operate normally, f) Appropriate performance adjustments are applied, g) Repairs are made within three flight days, and h) Except for GE90-100 series, EECs must be operated in the normal mode.

U.S. DEPARTMENT OF TRANSPO	RTATIC	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTRA	TION		
AIRCRAFT: BOEING B-777			REVISION NO: 18b PAGE:
	1		DATE: 06/13/2012 30-6
SYSTEM & ITEM SEQUENCE NUMBERS	2.	3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
30 ICE AND RAIN PROTECTION			
-21-02 Engine Anti-Ice C Indications (EAI)	2	0	
-31-01 Pitot Probe Heater Systems			
-31-01-01			
Right Pitot Heater B	1	0	 (M) May be inoperative provided: a) Right pitot air data module is deactivated, b) Left and center pitot air data modules operate normally, c) Left and center pitot probe heater systems operate normally, d) Left static air data module operates normally, e) Standby airspeed indication operates normally, f) Right AIR DATA/ATT instrument source switch operates normally, g) Approach minimums do not require its use, h) SAARU data is verified to be available to the right PFD before each departure, and i) Left and center pitot probes are inspected before each departure. (Continued)

U.S. DEF	PARTMENT OF TRANS	SPOR	ΓΑΤΙΟ	N		MASTER MINIMUM E					
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AIRCRAF	T: BOEING B-	777			REVISION NO: 18b	PAGE:					
	BOEING B-	111				DATE: 06/13/2012	30-7				
SYSTEM	Q.	1.	2.	NUME	BER INS	STALLED					
SEQUEN	CE			3.	NUMBE	R REQUIRED FOR DISPA	ГСН				
NUMBER	RS			4. REMARKS OR EXCEPTIONS							
30 ICE A	ND RAIN PROTECTION	NC									
-31-01-02		Б		0	(84) 84						
	Left Pitot Heater	В	1	0	a) b) c) d) e) f) g) h)	normally, Standby airspeed indication normally, Left AIR DATA/ATT instrurtions switch operates normally, Approach minimums do not use, SAARU data is verified to to the left PFD before each and Right and center pitot probinspected before each dep	ata modules e heater e operates n operates ment source ot require its be available in departure, es are				

TATIO	N				
	•	MASTER MINIMUM EQUIPMENT LIST			
1011	REVISION NO: 18b PAGE:				
		DATE: 06/13/2012 30-8			
2	NUME	BER INSTALLED			
		4. REMARKS OR EXCEPTIONS			
1	0	 (M) May be inoperative provided: a) Left and right pitot air data modules operate normally, b) Left and right pitot probe heater systems operate normally, c) Standby airspeed indication operates normally, d) Approach minimums do not require its use, e) Airplane is not operated in known or forecast icing conditions or visible moisture, f) Left and right pitot probes are inspected before each departure, and g) Flight remains within 120 minutes of landing at a suitable airport. 			
1	0	May be inoperative provided: a) Airplane is not operated in known or forecast icing conditions, and b) Flight remains within 120 minutes of landing at a suitable airport. (Continued)			
	2.	2. NUME 3.			

PARTMENT OF TRANS	SPOR	TATIO	N	
AL AVIATION ADMINIS	TRATI	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:				REVISION NO: 18b PAGE:
BOLINO B-	711			DATE: 06/13/2012 30-9
M &	1.	2.	NUME	BER INSTALLED
:NCE			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
AND RAIN PROTECTION	N			
Total Air Temperature (TAT) Probe Heater System (Cont'd)				
02 Dual TAT System				
02A	С	2	1	
02B	С	2	0	May be inoperative provided: a) Airplane is not operated in known or forecast icing conditions, and b) Flight remains within 120 minutes of landing at a suitable airport.
Engine PT2/TT2 Probe Heater Systems (PW & RR)				
PW	С	2	0	 (O) May be inoperative provided: a) Both engines must be operated in the alternate (ALTN) mode, and b) Appropriate performance adjustments are applied.
RR	С	2	0	 (O) May be inoperative provided: a) N2 indication on associated engine operates normally, b) Both engines must be operated in the alternate (ALTN) mode, and c) Appropriate performance adjustments are applied.
	AL AVIATION ADMINIS AFT: BOEING B- M & ITEM ERS AND RAIN PROTECTION Total Air Temperature (TAT) Probe Heater System (Cont'd) 02 Dual TAT System 02A 02B Engine PT2/TT2 Probe Heater Systems (PW & RR) 01 PW	AL AVIATION ADMINISTRATION AFT: BOEING B-777 1. M & ITEM ERS AND RAIN PROTECTION Total Air Temperature (TAT) Probe Heater System (Cont'd) 02 Dual TAT System 02A C 02B C Engine PT2/TT2 Probe Heater Systems (PW & RR) 01 PW C	AL AVIATION ADMINISTRATION AFT: BOEING B-777 M & ITEM ERS AND RAIN PROTECTION Total Air Temperature (TAT) Probe Heater System (Cont'd) 02 Dual TAT System 02A C 2 Engine PT2/TT2 Probe Heater Systems (PW & RR) 01 PW C 2	AFT: BOEING B-777 1. 2. NUME ITEM ERS AND RAIN PROTECTION Total Air Temperature (TAT) Probe Heater System (Cont'd) 02 Dual TAT System 02A

U.S. DE	EPARTMENT OF TRANS	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST				
FEDER	AL AVIATION ADMINIST	TRAT	ION		MASTER MINIMONIE QUIT MENTELST				
AIRCRAFT: BOEING B-777				REVISION NO: 18b PAGI					
					DATE: 06/13/2012 30-10				
SYSTE	M & ITEM	1.	2.	NUMBER INSTALLED					
SEQUE NUMBE	INCE			3.	NUMBER REQUIRED FOR DISPATCH				
					4. REMARKS OR EXCEPTIONS				
30 ICE	AND RAIN PROTECTION	DΝ							
-41-01	Flight Deck Forward Window Primary Heater Systems	С	2	1	One may be inoperative provided: a) Associated window backup heater operates normally, b) Both left and right side (No. 2) window heaters operate normally, c) Airplane is not operated in known or forecast icing conditions, d) Associated switch remains OFF, and e) Flight remains within 120 minutes of landing at a suitable airport.				
-41-02	Flight Deck Side (No. 2) Window Heater Systems	С	2	1	One may be inoperative provided: a) Both forward window primary heaters operate normally, and b) Associated switch remains OFF.				
-41-03	Flight Deck Aft (No. 3) Window Heater Systems	D	2	0					
-41-04	Window Heat INOP Lights	С	4	0					
-42-01	Windshield Wipers	С	2	0	May be inoperative provided: a) Airplane is not operated in known or forecast precipitation within 5 statute miles of the airport of departure or intended landing, and b) Approach minimums do not require its use.				
-42-01-	01 Low Speed Functions	С	2	0	May be inoperative provided associated high speed function operates normally. (Continued)				

U.S. DE	PARTMENT OF TRANS	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDER/	AL AVIATION ADMINIS	TRAT	ION		
AIRCRAFT: BOEING B-777				REVISION NO: 18b PAGE:	
	BOEING B-	777			DATE: 06/13/2012 30-11
SYSTEM	Л &	1.	2.	NUME	BER INSTALLED
SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	RS				4. REMARKS OR EXCEPTIONS
30 ICE	AND RAIN PROTECTION	N			
-42-01	Windshield Wipers (Cont'd)				
-42-01-0	02 High Speed Functions				
-42-01-0)2A	С	2	1	One may be inoperative provided associated low speed function operates normally.
-42-01-0)2B	С	2	0	May be inoperative provided: a) Both low speed functions operate normally, and b) Airplane is not operated in known or forecast precipitation of moderate or greater intensity within 5 statute miles of the airport of departure or intended landing.
-42-01-0	03 Intermittent Functions	С	2	0	
-71-01	Drain Mast Heaters	С	2	0	 (M) May be inoperative provided: a) Associated galley service and lavatory sinks are not used, and b) Associated galley and lavatory sink water supply shutoff valves are closed.
-81-01	Ice Detectors	С	2	0	(O) May be inoperative provided engine and wing anti-ice systems are operated manually.

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FEDERAL AVIATION ADMINISTR	ATION							
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			DATE: 11/05/2014 31-1					
SYSTEM &	1. 2.	2. NUMBER INSTALLED						
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH					
NOWIDENS			4. REMARKS OR EXCEPTIONS					
31 INDICATING/RECORDING SYSTEMS								
-09-01 Systems Cardfile (ARINC Signal Gateway (ASG) Cards	C 4	2	 (O) Two ASG cards and/or the associated ARINC 629 couplers may be inoperative provided: a) One inoperative ASG card and/or associated ARINC 629 coupler is in the left systems cardfile, b) One inoperative ASG card and/or associated ARINC 629 coupler is in the right systems cardfile, c) Left and right hydraulic demand pump ON and OFF selectors operate normally, d) Left and right hydraulic demand pump selectors are ON for takeoff and landing, and e) Center system hydraulic demand pump C1 or C2 is ON for takeoff and landing. 					
-09-01-01 Left Systems Cardfile (ASG Cards	2	1	(O) One ASG card and/or the associated ARINC 629 coupler may be inoperative in the left systems cardfile provided: a) Left hydraulic demand pump ON and OFF selector operates normally, b) Left hydraulic demand pump selector is ON for takeoff and landing, and c) Both right systems cardfile ASG cards operate normally.					
-09-01-02 Right Systems Cardfile ASG Cards	C 2	1	 (O) One ASG card and/or the ARINC 629 coupler may be inoperative in the right systems cardfile provided: a) Right hydraulic demand pump ON and OFF selector operates normally, b) Right hydraulic demand pump selector is ON for takeoff and landing, and c) Both left systems cardfile ASG cards operate normally. 					

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BOLING B-		1		DATE: 11/05/2014 31-2				
SYSTEM & ITEM	1.	2.						
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
31 INDICATING/RECORDING SYSTEMS		<u> </u> 						
-09-02 Systems Cardfile Power Supplies								
-09-02-01 Left Systems Cardfile (LSCF) Power Supplies	С	2	1	(M)(O) One power supply may be inoperative deactivated.				
-09-02-02 Right Systems Cardfile (RSCF) Power Supplies								
-09-02-02A	С	2	1	(M) Power supply 2 may be inoperative deactivated.				
-09-02-02B	С	2	1	(M) Power supply 1 may be inoperative deactivated provided left air/ground system operates normally.				
-20-01 Countdown Timer	D	1	0					
-25-01 Clocks	С	2	1					
-25-02 Clock Switches	С	2	1					

U.S. DEPARTMENT OF TRANS	POR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST		
FEDERAL AVIATION ADMINIST	ΓRΑΤΙ	ION				
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		ı		DATE: 11/05/2014 31-3		
SYSTEM &	1.	2.	NUME	BER INSTALLED		
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH		
				4. REMARKS OR EXCEPTIONS		
31 INDICATING/RECORDING SYSTEMS						
-31-01 Flight Data Record (FDR) System						
-31-01A	С	-	1	Any in excess of those required by 14 CFR may be inoperative.		
-31-01B	A	-	0	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, b) Airplane is not dispatched from a designated airport as listed in the operator's MEL unless: 1) The FDR failure occurs after pushback but prior to takeoff, or 2) The FDR repair was attempted but was not successful. c) In those cases where repair is attempted but not successful, the airplane may be dispatched on a flight or a series of flights until the next designated airport where repair must be accomplished prior to dispatch, and d) Repairs are made within three flight days.		
-31-01-01 FDR Recording Parameters Required by 14 CFR	Α	-	-	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, and b) Repairs are made within 20 calendar days.		
-31-01-02 FDR Recording Parameters Not Required by 14 CFR	Α	-	-	May be inoperative provided repairs are made prior to the completion of the next heavy maintenance visit.		

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					DATE: 11/05/2014 31-4
SYSTE	M&	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
	ICATING/RECORDING STEMS				
-33-01	Airborne Printer (Flight Deck)				
-33-01A		С	1	0	(O) May be inoperative provided alternate procedures are established and used.
-33-01E	3	D	1	0	May be inoperative provided procedures do not require its use.
-33-01-0	01				
	Miscellaneous Features	D	-	-	
-35-01 ***	Quick Access Recorder	D	1	0	
-35-02 ***	Airplane Condition Monitoring Function (ACMF)	D	1	0	
-41-01	DELETED (AIMS Cabinet Hot Battery Bus Power Inputs)				Revision 18 deleted item.
-41-02	DELETED (AIMS Core Processor Module/Graphics Generator (CPM/GG) Channels (AIMS BP-01 or Later Not Installed))				Revision 18 deleted item.

EPARTMENT OF TRANS			N	MASTER MINIMUM EQUIPMENT LIST
AFT:	111/11	1014		REVISION NO: 20a PAGE:
BOEING B-	777			DATE: 11/05/2014 31-5
SYSTEM &		2.	NUME	BER INSTALLED
ENCE			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
DICATING/RECORDING STEMS			 	
Airplane Information Management System (AIMS)				
01 AIMS-II Cabinet Bus	С	1	0	May be dispatched with AIMS CABINET BUS faults.
Master Warning Lights (Glareshield)	С	2	1	One may be inoperative provided the aural for the master warning system operates normally.
Master Caution Lights (Glareshield)	С	2	1	One may be inoperative provided the aural for the master caution system operates normally.
Aural Warning Speaker Systems	С	2	1	One may be inoperative provided master warning and master caution lights operate normally.
Warning Electronics System (WES) Channels				
01 Passenger				
01A	С	4	3	One may be inoperative provided: a) Both stabilizer position indicators operate normally, and b) SPEED LIM flag is not displayed adjacent to the airspeed indication on either PFD.
01B	С	4	3	(M) One may be inoperative deactivated. (Continued)
	AFT: BOEING B- M & ITEM ERS DICATING/RECORDING STEMS Airplane Information Management System (AIMS) 01 AIMS-II Cabinet Bus Master Warning Lights (Glareshield) Master Caution Lights (Glareshield) Aural Warning Speaker Systems Warning Electronics System (WES) Channels 01 Passenger 01A	AFT: BOEING B-777 IM & ITEM ERS DICATING/RECORDING STEMS Airplane Information Management System (AIMS) O1 AIMS-II Cabinet Bus C Master Warning C Lights (Glareshield) Master Caution Lights C (Glareshield) Aural Warning C Speaker Systems Warning Electronics System (WES) Channels O1 Passenger O1A C	AFT: BOEING B-777 M & ITEM ERS DICATING/RECORDING STEMS Airplane Information Management System (AIMS) O1 AIMS-II Cabinet Bus C 1 Master Warning C 2 Lights (Glareshield) Master Caution Lights C (Glareshield) Aural Warning C 2 Warning Electronics System (WES) Channels O1 Passenger O1A C 4	AFT: BOEING B-777 M & ITEM

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AIRCRAFT:	` D 777			REVISION NO: 20a PAGE:
BOEING	D-///			DATE: 11/05/2014 31-6
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
	VC			4. REMARKS OR EXCEPTIONS
31 INDICATING/RECORDII SYSTEMS	NG			
-51-04 Warning Electronics System (WES) Channels (Cont'd)	3			
-51-04-02 777F				
-51-04-02A	С	4	3	One may be inoperative provided: a) CSD controller channels operate normally, b) All ASG cards operate normally, c) Both stabilizer position indicators operate normally, and d) SPEED LIM flag is not displayed adjacent to the airspeed indication on either PFD.
-51-04-02B	С	4	3	(M) One may be inoperative provided: a) Inoperative channel is deactivated, b) CSD controller channels operate normally, and c) All ASG cards operate normally.
-51-05 Warning Electronic System (WES) Autopilot Disconnec Warning Function	B et	1	0	 (O) May be inoperative provided: a) Autopilots are not used, b) Approach minimums do not require use of the autopilots, c) Number of flight segments and segment duration is acceptable to flight crew, d) Enroute operations do not require use of the autopilots, and e) Flight remains within 180 minutes of landing at a suitable airport.
-51-05-01 WES Autopilot Interfaces	С	3	2	(O) One may be inoperative provided the WES autopilot disconnect warning function is verified to operate normally.

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RCRAFT:				REVISION NO: 20a PAGE:				
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VCTEM 9	1.	2.	2. NUMBER INSTALLED					
YSTEM & ITEM EQUENCE			3.	NUMBER REQUIRED FOR DISPATCH				
UMBERS				4. REMARKS OR EXCEPTIONS				
I INDICATING/RECORDING SYSTEMS								
1-06 TAKEOFF * Configuration CHECK Switch								
1-06A	С	1	0					
1-06B	D	1	0	May be inoperative provided procedures do not require its use.				
1-01 Display Units (DU)	С	6	5	One may be inoperative in the lower center DU position.				
1-02 Cursor Control Devices (CCD)								
1-02A	С	2	1					
1-02B	С	2	0	(O) May be inoperative provided alternate procedures are established and used.				
1-03 Remote Light Sensor (RLS) System	В	1	0	May be inoperative provided all manual display brightness controls operate normally.				
1-04 Display Select Panel (DSP)	С	1	0	(M)(O) May be inoperative provided the left and right CDU DSP backup features are verified to operate normally.				
1-05 EICAS Status Messages								
1-05A	С	-	0	(M)(O) May be inoperative provided an acceptable procedure is used before each flight to verify that associated equipment operates normally.				
1-05B	С	-	0	May be inoperative provided associated equipment is considered inoperative.				

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			T		DATE: 11/05/2014 31-8		
SYSTEM & ITEM	1.	2.	NUMBER INSTALLED				
SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH		
					4. REMARKS OR EXCEPTIONS		
	ICATING/RECORDING STEMS						
-61-06	Inboard Display Selector Positions	В	8	7	 (M)(O) One may be inoperative provided: a) Lower center display unit operates normally, b) Remaining positions are verified to operate normally on associated selector, and c) Alternate procedures are used when required. 		
-61-07	Electronic Checklist (ECL) System	С	1	0	(M)(O) May be inoperative provided electronic checklist is deactivated and established paper checklist procedures are used.		
-61-07-	01						
	ECL Closed Loop Switch Indications	С	-	0	(O) May be inoperative provided ECL line item override procedures are used when required to complete checklists.		
-61-08	EFIS Control Panels	C	2	1	(M)(O) One may be inoperative provided the associated CDU EFIS control panel backup feature is verified to operate normally.		

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BOEING B-777				DATE: 11/05/2014 31-9			
	1.	2.	NIIIME	BER INSTALLED			
SYSTEM & ITEM SEQUENCE	١.	۷.	3. NUMBER REQUIRED FOR DISPATCH				
NUMBERS			ა.				
24 INDICATING/DECORDING				4. REMARKS OR EXCEPTIONS			
31 INDICATING/RECORDING SYSTEMS							
04.00 1.4 4.0							
-61-09 Instrument Source Switches							
-61-09-01 NAV and DSPL CTRL	С	5	0	May be inoperative provided associated			
Switches	J		O	switches are not moved in flight.			
-61-09-02							
AIR DATA/ATT							
Switches							
-61-09-02A	С	2	1	One may be inoperative provided the associated			
				switch is not moved in flight.			
-61-09-02B	С	2	0	(M) May be inoperative provided:			
				a) One AIR DATA/ATT switch is in the normal position,			
				b) Associated display units are verified to			
				operate from selected sources, and c) Associated switches are not moved in			
				flight.			
-61-10 Ground Maneuver	D	1	0				
Camera System	_						
(-300/-300ER)							
-61-11 Heading Reference							
(HDG REF) Switch							
-61-11-01							
TRUE Function	С	1	0	(O) May be inoperative provided enroute procedures do not require its use.			
				process as not royallo no acc.			

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	-777			REVISION NO: 20a PAGE:				
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SYSTEM & ITEM	1.	2.	NUMBER INSTALLED					
SEQUENCE TILW NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
31 INDICATING/RECORDING SYSTEMS				4. KLWAKKO OK EXCEPTIONS				
-61-12 Head-Up Display (HUD)/Enhanced Flight Vision System (EFVS) (STC ST03981AT)								
-61-12-01 Head-Up Display (HUD) System								
-61-12-01A	С	1	0	(O) May be inoperative provided takeoff and approach minimums do not require its use.				
				NOTE: Any mode which operates normally may be used.				
-61-12-01B	D	1	0	May be inoperative provided procedures do not require its use.				
-61-12-01-01								
HUD Normal/Declutter Functions (Control Wheel Switch)	С	1	0					
-61-12-01-02 HUD Guidance Annunciator								
-61-12-01-02A	С	1	0	(O) May be inoperative provided takeoff minimums do not require its use.				
-61-12-01-02B	D	1	0	May be inoperative provided procedures do not require its use.				
				(Continued)				

U.S. DEPARTMENT OF TRANS	SPOR	TATIO	N	
FEDERAL AVIATION ADMINIS	TRAT	ION		MASTER MINIMUM EQUIPMENT LIST
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BOEING B	-111			DATE: 11/05/2014 31-11
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
31 INDICATING/RECORDING SYSTEMS		İ		
-61-12 Head-Up Display (HUD)/Enhanced Flight Vision System (EFVS) (STC ST03981AT) (Cont'd)				
-61-12-02 Enhanced Flight Vision System (EFVS)				
-61-12-02A	С	1	0	(O) May be inoperative provided takeoff and approach minimums do not require its use.
				NOTE: Any mode which operates normally may be used.
-61-12-02B	D	1	0	May be inoperative provided procedures do not require its use.
-61-12-02-01 EFVS Hide/Show Functions (Control Wheel Switch)	С	1	0	May be inoperative provided EFVS is considered inoperative.
-61-12-03 HUD Combiner Control Panel Functions				
-61-12-03-01 HUD Brightness Functions (BRT)	С	1	0	May be inoperative provided brightness is set at a usable level that is acceptable to the affected crew member.
				(Continued)

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SYSTEM & ITEM	1.	2.	NUME	BER INSTALLED
SEQUENCE THEM NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
31 INDICATING/RECORDING SYSTEMS				
-61-12 Head-Up Display (HUD)/Enhanced Flight Vision System (EFVS) (STC ST03981AT) (Cont'd)				
-61-12-03 HUD Combiner Control Panel Functions (Cont'd)				
-61-12-03-02				
HUD Automatic/Manual Brightness Functions (AUTO/MAN)	С	1	0	May be inoperative provided brightness is set at a usable level that is acceptable to the affected crew member.
-61-12-03-02A	С	1	0	AUTO function may be inoperative provided MAN function operates normally.
-61-12-03-02B	С	1	0	MAN function may be inoperative provided AUTO function operates normally.
-61-12-03-03				
EFVS Brightness/Contrast Functions (BRT/CONT)	С	1	0	May be inoperative provided brightness/contrast is set at a usable level that is acceptable to the affected crew member.
-61-12-04	^			(O) Mouthoring profits a provide district off
EFVS Window Heater	С	1	0	(O) May be inoperative provided takeoff and approach minimums do not require use of the EFVS in known or forecast icing conditions.

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SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
32 LANDING GEAR				
-00-01 Landing Gear Synoptic Display	С	1	0	
-08-01 Proximity Sensor Electronic Unit (PSEU) Channels				
-08-01A	С	4	3	
-08-01B	С	4	2	(M)(O) One may be inoperative in each PSEU provided: a) PSEU 1 transmission is verified on the left ARINC 629 systems bus, and b) PSEU 2 transmission is verified on the right ARINC 629 systems bus.
-08-01C	С	4	2	 (M)(O) One may be inoperative in each PSEU provided: a) PSEU 1 transmission is verified on the right ARINC 629 systems bus, b) PSEU 2 transmission is verified on the left ARINC 629 systems bus, c) After takeoff, gear remains down for two minutes before retraction, and d) Takeoff performance is based on landing gear extended.
-08-01D	С	4	2	(M)(O) One may be inoperative in each PSEU provided: a) Landing gear are secured in the down position, and b) Airplane is dispatched in accordance with the appropriate AFM Gear Extended Appendix.

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SYSTE	M &	1.	2.	NUME	BER INSTALLED				
SEQUE	INCE ITEM			3. NUMBER REQUIRED FOR DISPATCH					
NUMBE	:K5				4. REMARKS OR EXCEPTIONS				
32 LAN	NDING GEAR								
-09-01	Air/Ground System - Weight on Wheels								
-09-01-									
	Left System	С	1	0	 (M) May be inoperative provided: a) Associated system is deactivated, b) Right air/ground system operates normally, and c) Right system cardfile power supply 1 operates normally. 				
-09-01-	02								
	Right System	С	1	0	 (M) May be inoperative provided: a) Associated system is deactivated, b) Left air/ground system operates normally, and c) All galley/lavatory water supply shutoff valves are closed. 				
-11-01	Nose Landing Gear Strut Upper Air Chamber Pressure Indicator (-300ER)	D	1	0					
-30-01	Landing Gear Actuation System	В	1	0	 (M)(O) May be inoperative provided: a) Inoperative components are properly secured by an accepted procedure, b) Landing gear is secured in the down position, and c) Airplane is dispatched in accordance with the appropriate AFM Gear Extended Appendix. 				
-30-02	Semi-Lever Gear (SLG) System (-300ER)	С	1	0	(M)(O) May be inoperative provided: a) SLG system is deactivated, and b) Appropriate performance adjustments are applied.				
-31-01	Landing Gear Lever Lock Solenoid	С	1	0	(O) May be inoperative provided solenoid is in the locked position.				

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BOEING B-777					DATE: 04/14/2014 32-3
SYSTE	M &	1.	2.	NUME	BER INSTALLED
SEQUE NUMBI	ENCE			3.	NUMBER REQUIRED FOR DISPATCH
			-		4. REMARKS OR EXCEPTIONS
32 LAN	NDING GEAR				
-31-02	Landing Gear Selector Valve Electrical Control Circuits	С	2	1	(M) One UP/DOWN electrical control circuit may be inoperative provided the remaining UP/DOWN circuit is verified to operate normally each flight day.
-32-01	Main Gear Door Uplock Spring Assemblies	В	4	2	(M)(O) One spring on each door uplock mechanism may be missing and gear retraction allowed provided 270 KIAS/.82 Mach is not exceeded during flight.
-32-01-	01				
	Spring Retention Cords	С	4	0	
-32-02	Main Gear Uplock Springs	В	4	3	(M)(O) One spring on one main gear uplock mechanism may be missing and gear retraction allowed provided 270 KIAS/.82 Mach is not exceeded during flight.
-32-03	Main Gear Side Brace Springs (PRR 61350-34 Not Incorporated)	В	4	3	(M)(O) One main gear side brace spring may be missing provided airspeed is limited to 250 knots when extending landing gear using alternate gear extend system.
-35-01	Landing Gear Alternate Extend System	В	1	0	 (M)(O) May be inoperative provided: a) Landing gear are secured in the down position, b) Alternate extend system is deactivated, and c) Airplane is dispatched in accordance with the appropriate AFM Gear Extended Appendix.
-35-01-	01 Alternate Extend Hydraulic Pressure Switch	В	1	0	(M) May be inoperative open provide landing gear doors are verified to open using the alternate extend system.

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FEDER	AL AVIATION ADMINIS	ΓRΑΤΙ	ON		MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT: BOEING B-777			REVISION NO: 20 PAG					
			ı		DATE: 04/14/2014 32-4			
SYSTE	M & ITEM	1.	2.	NUME	BER INSTALLED			
SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH			
					4. REMARKS OR EXCEPTIONS			
32 LAN	NDING GEAR							
-35-02	Ground Door Release Control System	С	1	0	 (M) May be inoperative provided: a) Both door open control switches are verified to be open, b) Landing gear doors are verified to open using the alternate extend system, and c) Landing gear doors are closed before each departure. 			
-35-02-	01							
	Door Open Control Switches	В	2	0	 (M)(O) May be inoperative closed provided: a) Landing gear are secured in the down position, b) Landing gear alternate extend system is deactivated, and c) Airplane is dispatched in accordance with the appropriate AFM Gear Extended Appendix. 			
-41-01	Brake Accumulator Pressure Indicator (Wheel Well)	D	1	0	May be inoperative provided flight deck brake accumulator pressure indicator operates normally.			
-41-02	Brake Accumulator Pressure Indicator (Flight Deck)	С	1	0	(M) May be inoperative provided brake accumulator charge is verified normal once each flight day.			
-41-03	BRAKE SOURCE Indication System	A	1	0	 (M)(O) May be inoperative provided: a) Flight deck brake accumulator pressure indicator operates normally, b) Normal and alternate brake systems are verified to operate normally, c) Brake accumulator isolation valve is verified to operate normally, d) Alternate procedures are established and used, and e) Repairs are made within three flight days. 			
-41-03-	01 BRAKE SOURCE Light	С	1	0	May be inoperative provided the BRAKE SOURCE alerting message operates normally.			

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RATIO	ON		MASTER MINIMUM EQUIPMENT LIST					
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			DATE: 04/14/2014 32-5					
1.	2.	NUME	BER INSTALLED					
		3. NUMBER REQUIRED FOR DISPATCH						
			4. REMARKS OR EXCEPTIONS					
С	12	10	 (M)(O) One valve per each six wheel truck may be inoperative provided: a) Associated brake is deactivated using the deactivation assembly, and b) AFM performance decrements for brake(s) deactivated are applied. 					
С	12	10	 (M)(O) One valve per each six wheel truck may be inoperative provided: a) Associated brake is deactivated by capping the brake line, b) After takeoff, gear remains down for two minutes before retraction, c) AFM performance decrements for brake(s) deactivated are applied, and d) Takeoff performance is based on landing gear extended. 					
С	12	10	 (O) One transducer per each six wheel truck may be inoperative provided: a) AFM performance decrements for brake(s) deactivated are applied, and b) No other brakes are deactivated on that truck. 					
С	8	0	(M) May be inoperative provided manual braking capability on the alternate brake system is verified to operate normally.					
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SYSTE	M & ITEM	1.	2.	NUME	BER INSTALLED			
SEQUE NUMBE	NCE			3. NUMBER REQUIRED FOR DISPATCH				
					4. REMARKS OR EXCEPTIONS			
32 LAN	IDING GEAR							
-42-04	Autobrake System (Including Autobrake Solenoid Valve)							
-42-04 <i>P</i>		С	1	0	(M) May be inoperative provided: a) Autobrake solenoid valve is verified closed, and b) Autobrake selector remains in the OFF position.			
-42-04E		С	1	0	(M) May be inoperative provided: a) Autobrake hydraulic control module is deactivated, and b) Autobrake selector remains in the OFF position.			
-44-01	Brake Status Lights (On Nose Gear)							
-44-01 <i>P</i>		С	3	0	(O) May be inoperative provided alternate procedures are established and used.			
-44-01E	3	D	3	0	May be inoperative provided procedures do not require their use.			
-44-02	Gear Retraction Braking System	С	1	0	(O) Maybe inoperative provided: a) After takeoff, gear remains down for two minutes before retraction, and b) Takeoff performance is based on landing gear extended.			
-44-03	Parking Brake Set Indication System (Flight Deck)	С	1	0	 (M)(O) May be inoperative provided: a) Alternate procedures are established and used, b) Parking brake valve is verified to operate normally once each flight day, c) Parking brake and brake antiskid interface indication is verified to operate normally once each flight day, and d) Parking brake takeoff configuration warning system is verified to operate normally. 			

FEDERAL AVIATIO	N ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:	BOEING B-777			REVISION NO: 20 PAGE:
		T		DATE: 04/14/2014 32-7
SYSTEM &	1. ITEM	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS	I I EIVI		3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
32 LANDING GEA	₹			
-45-01 Wheel Brak	kes			
-45-01A	С	12	10	(M)(O) One per each six wheel truck may be inoperative provided: a) Associated brake is deactivated with a deactivation assembly, and b) AFM performance decrements for brakes deactivated are applied.
-45-01B	С	12	10	 (M)(O) One per each six wheel truck may be inoperative provided: a) Associated brake is deactivated by capping the brake line, b) After takeoff, gear remains down for two minutes before retraction, c) AFM performance decrements for brakes deactivated are applied, and d) Takeoff performance is based on landing gear extended.
-45-01C	C	12	10	 (M)(O) One per each six wheel truck may be removed from the center axle only provided: a) Associated brake line is capped, b) After takeoff, gear remains down for two minutes before retraction, c) AFM performance decrements for brakes deactivated are applied, and d) Takeoff performance is based on landing gear extended.

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	AL AVIATION ADMINIS			1 V	MASTER MINIMUM EQUIPMENT LIST
AIRCR				REVISION NO: 20 PAGE:	
BOEING B-777					DATE: 04/14/2014 32-8
SYSTE	M & ITEM	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH
32 I AN	IDING GEAR				4. REMARKS OR EXCEPTIONS
02 27	.5				
-45-02	Wheel Tie Bolts	A	-	-	 (M) One per wheel may be broken or missing provided: a) Affected wheel is removed, checked for broken parts or damage, and replaced if broken parts or damage is found, b) Associated brake is checked for broken parts or damage, and is replaced or deactivated if broken parts or damage is found, c) After each landing, wheel is inspected for additional broken or missing tie bolts, and d) Operations are limited to five departures before repairs are made.
-45-03 ***	Integral Tire Pressure Indicators	D	-	0	
-45-04	Nose Gear Spin Brake	С	2	0	(O) May be inoperative or missing provided after takeoff, gear remains down for two minutes before retraction.
					NOTE: In the event of engine failure after V1, retract landing gear after takeoff.
-46-01	Brake Temperature Indication System	С	1	0	(O) May be inoperative provided AFM Maximum Quick Turnaround Weight limitations are observed.
					NOTE 1: Brake cooling fans (if installed) will be inoperative when all brake temperature indications are inoperative.
					NOTE 2: Any portion of the system that operates normally may be used.
-47-01 ***	Brake Cooling Fans	D	12	0	(M) May be inoperative provided associated fan shrouds are removed.

U.S. DE	EPARTMENT OF TRAN	SPOR ⁻	TATIO	N	MASTER MINIMUM EQUIPMENT LIST			
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AIRCRAFT: BOEING B-777		REVISION NO: 20 PAGE:						
					DATE: 04/14/2014 32-9			
SYSTE	M &	1.	2.	NUME	BER INSTALLED			
SEQUE NUMBE				3. NUMBER REQUIRED FOR DISPATCH				
INOIVIDE					4. REMARKS OR EXCEPTIONS			
32 LAN	IDING GEAR		<u> </u>					
-49-01 ***	Tire Pressure Indication System							
-49-01 <i>A</i>		С	1	0	May be inoperative provided alternate procedures are established and used.			
					NOTE: Any portion of the system that operates normally may be used.			
-49-01E	3	D	1	0	May be inoperative provided procedures do not require its use.			
-53-01	Main Gear Steering System (Including Indication)	С	1	0	 (M) May be inoperative provided: a) Main gear steering actuators are verified locked in the center position, and b) Main gear steering system is deactivated. 			
-61-01	Landing Gear Position Indication Systems	В	2	0	 (M)(O) May be inoperative provided: a) Landing gear are secured in the down position, and b) Airplane is dispatched in accordance with the appropriate AFM Gear Extended Appendix. 			
-61-01-	01							
	Truck Tilt Sensors	С	4	0	(M)(O) May be inoperative provided the nose gear lock, nose gear down, main gear side brace and main gear drag brace sensors are verified to operate normally each flight day.			
					(Continued)			

EPARTMENT OF TRAN	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
RAL AVIATION ADMINIS	TRATI	ION		
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				DATE: 04/14/2014 32-10
IM &	1.	2.	NUME	BER INSTALLED
ENCE			3.	NUMBER REQUIRED FOR DISPATCH
ERS				4. REMARKS OR EXCEPTIONS
NDING GEAR				
Landing Gear Position Indication Systems (Cont'd)				
02				
Nose Gear Not-Compressed Sensors				
02-01				
PSEU-1	С	1	0	 (M) May be inoperative provided: a) Nose gear lock, nose gear down, main gear side brace and main gear drag brace sensors are verified to operate normally each flight day, and b) PSEU-2 operates normally.
02-02				
PSEU-2	С	1	0	 (M) May be inoperative provided: a) Nose gear lock, nose gear down, main gear side brace and main gear drag brace sensors are verified to operate normally each flight day, b) Left equipment cooling controller operates normally, and c) PSEU-1 operates normally.
Landing Gear Door Position Sensors	С	6	3	(M) One per gear (nose, left main, right main) may be inoperative provided sensor is failed in the door not closed position.
Landing Gear Uplock Position Sensors	С	6	3	(M) One per gear may be inoperative provided the sensor is failed in the unlocked position and the associated landing gear door position sensors operate normally.
	AFT: BOEING B M & ITEM ENCE ERS NDING GEAR Landing Gear Position Indication Systems (Cont'd) 02 Nose Gear Not-Compressed Sensors 02-01 PSEU-1 02-02 PSEU-2 Landing Gear Door Position Sensors Landing Gear Uplock	RAL AVIATION ADMINISTRATION AFT: BOEING B-777 1. ITEM ENCE ERS NDING GEAR Landing Gear Position Indication Systems (Cont'd) 02 Nose Gear Not-Compressed Sensors 02-01 PSEU-1 C Landing Gear Door PSEU-2 C Landing Gear Door Position Sensors Landing Gear Uplock C	AFT: BOEING B-777 IM & ITEM ERS NDING GEAR Landing Gear Position Indication Systems (Cont'd) 102 Nose Gear Not-Compressed Sensors 102-01 PSEU-1 C 1 Landing Gear Door C 1 Landing Gear Door C 6 Position Sensors Landing Gear Uplock C 6	BOEING B-777 BOEING B-777 AFT: BOEING B-777 1.

	EPARTMENT OF TRAN AL AVIATION ADMINIS			N	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777					REVISION NO: 20 PAGE:
					DATE: 04/14/2014 32-11
SYSTE	11 - 11	1.	2.		BER INSTALLED
SEQUE NUMBE	INCE			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
32 LAN	NDING GEAR		-		
-71-01	Tail Strike Detector Channels	С	2	1	
-72-01	Tail Skid (-300/-300ER)	С	1	0	
-72-01-					
	-300	С	1	0	 (M)(O) May be inoperative provided: a) Tail skid is secured in the extended position, b) Water supplies associated with aft drain mast are secured off, and c) Appropriate performance adjustments are applied.
-72-01- ***	02 -300ER	C	1	0	 (M)(O) May be inoperative provided: a) Tail skid is secured in the extended position, b) Water supplies associated with aft drain mast are secured off, and c) Appropriate performance adjustments are applied.

U.S. DEPARTMENT OF TRA			N	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING	B-777			REVISION NO: 20 PAGE: DATE: 04/14/2014 32-12
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
32 LANDING GEAR				
-72-02 Tail Skid Position Sensing System (-300/-300ER)				
-72-02-01 -300				
-72-02-01A	С	1	0	(M) May be inoperative provided tail skid extend/retract function is verified to operate normally once each flight day.
-72-02-01B	С	1	0	 (M)(O) May be inoperative provided: a) Tail skid is secured in the extended position, b) Water supplies associated with aft drain mast are secured off, and c) Appropriate performance adjustments are applied.
-72-02-02 *** -300ER				
-72-02-02A	С	1	0	(M) May be inoperative provided tail skid extend/retract function is verified to operate normally once each flight day.
-72-02-02B	С	1	0	 (M)(O) May be inoperative provided: a) Tail skid is secured in the extended position, b) Water supplies associated with aft drain mast are secured off, and c) Appropriate performance adjustments are applied.

U.S. DI	EPARTMENT OF TRANS	SPORT	ΓΑΤΙΟ	N	MA CTED MINIMUM FOLUDMENT LICT				
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AIRCRAFT:				REVISION NO: 20 PAGE:					
BOEING B-777				DATE: 04/14/2014 33-1					
		1.	2.	NUME	BER INSTALLED				
SYSTE SEQUE	11 - 1/1				NUMBER REQUIRED FOR DISPATCH				
NUMBI					4. REMARKS OR EXCEPTIONS				
33 LIG	HTS								
-11-01	Flight Compartment and Instrument Lighting System	C	-		Individual lights or light controls may be inoperative provided: a) Remaining lighting system lights are sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided, b) Remaining lighting system lights are positioned so that direct rays are shielded from flight crew eyes, c) Lighting configuration and intensity is acceptable to the flight crew, and d) Captain's emergency dome light operates normally. NOTE: Individual button/switch lights and/or annunciations/indications are excluded from this relief.				
-13-01	Master Brightness Control	С	1	0	May be inoperative provided the master brightness control switch is selected off.				
-16-01	Master Dim and Test System	В	1	0	Dim function may be inoperative provided: a) TEST and BRT functions operate normally, and b) Light intensity is acceptable to the flight crew.				

U.S. DEPARTMENT OF TRANSPOR		N	MASTER MINIMUM EQUIPMENT LIST				
FEDERAL AVIATION ADMINISTRATE AIRCRAFT:	IION	REVISION NO: 20 PAGE:					
BOEING B-777							
			DATE: 04/14/2014 33-2				
SYSTEM & ITEM	2.	NUMBER INSTALLED					
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH				
33 LIGHTS			4. REMARKS OR EXCEPTIONS				
33 LIGHTS							
-21-01 Cabin Interior Illumination							
-21-01-01 Passenger							
-21-01-01 With Powered Floor C Proximity Emergency Escape Path Lighting System	-	-	Individual lights may be inoperative provided: a) Sufficient lighting remains for crew members to perform their duties, and b) For night operations beyond 60 minutes of landing at a suitable airport, at least 75% of the standby lights operate normally.				
-21-01-01-02 With C Photoluminescent Floor Proximity Emergency Escape Path Marking System	-	-	Four total ceiling and sidewall lamps may be inoperative in each cabin zone provided: a) No more than two lamps are inoperative in each cabin zone aisle, b) A minimum of two lamps must operate normally between inoperative lamps, and c) Inoperative ceiling and sidewall lamps may not be adjacent. NOTE: A cabin zone is the passenger cabin area between two sets of main entry door pairs.				
-21-01-02 777F C	-	-	Individual lights may be inoperative provided sufficient lighting remains for supernumeraries/cargo couriers to perform their duties.				

U.S. DEPARTMENT OF TRANSPO	ORTATIC	MA CTED MINIMUM FOLUDMENT LICT	
FEDERAL AVIATION ADMINISTRA	ATION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:	,		REVISION NO: 20 PAGE:
BOEING B-777			DATE: 04/14/2014 33-3
SYSTEM & ITEM	. 2.	NUME	ER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
33 LIGHTS			
-24-01 Passenger Information Signs (No Smoking/Fasten Seat Belt/Return To Seat) (Passenger)			
-24-01A C	-	0	(M) May be inoperative provided: a) Associated passenger seat, or lavatory is not occupied from which a No Smoking/Fasten Seat Belt/Return to Seat Sign is not readily legible, and b) Associated seat or lavatory must be blocked and placarded - DO NOT OCCUPY.
			NOTE: These provisos are not intended to prohibit lavatory use or inspections by crewmembers.
-24-01B C	-	0	 (O) May be inoperative and the associated passenger seat or lavatory may be occupied provided: a) PA system operates normally and can be clearly heard throughout the cabin during flight, and b) PA system is used to alert the cabin crew and to notify passengers when seat belts should be fastened, when smoking is prohibited, and when passengers should return to seats
-24-01C C	-	0	 (O) May be inoperative or missing provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CRF for non-passenger carrying operations are carried, and c) Alternate procedures are established and used. (Continued)

U.S. DE	PARTMENT OF TRANS	POR	ΓΑΤΙΟ	N	
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AIRCRAFT: BOEING B-777					REVISION NO: 20 PAGE:
	BOEING B-	111			DATE: 04/14/2014 33-4
SYSTEM	VI &	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
33 LIGH	HTS				
-24-01	Passenger Information Signs (No Smoking/Fasten Seat Belt/Return To Seat) (Passenger) (Cont'd)				
-24-01-0	01 Flight Deck Automatic Function	С	1	0	 (O) May be inoperative provided: a) Manual control function operates normally, and b) Alternate procedures are established and used.
-24-01-0 ***	02 Crew/Attendant Rest	С	-	0	(O) May be inoperative provided alternate
	Areas				procedures are established and used.
-24-01-0		0		•	(0) Marcharitan and the Laborator
	Aural Tone Function	С	1	0	(O) May be inoperative provided alternate procedures are established and used.
-24-02	Supernumerary/ Courier Area Lighted Information Signs (777F)	С	-	0	(O) May be inoperative provided alternate procedures are established and used.
-24-02-0					
	Flight Deck Automatic Function	С	1	0	 (O) May be inoperative provided: a) Manual control function operates normally, and b) Alternate procedures are established and used.

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FEDERAL AVIATION ADMINI	STRATI	ION		
AIRCRAFT: BOEING E	R-777			REVISION NO: 20 PAGE:
				DATE: 04/14/2014 33-5
SYSTEM &	1.	2.	NUM	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
33 LIGHTS				
-28-01 Sterile Flight *** Compartment Light System				
-28-01A	С	1	0	(O) May be inoperative provided alternate procedures are established and used.
-28-01B	D	1	0	May be inoperative provided procedures do not require its use.
-31-01 Main Wheel Well and Nose Wheel Well Service Area Lights				
-31-01A	С	-	0	NOTE: Relief for the Air Conditioning Compartment, APU Compartment, Stabilizer Compartment and Electrical Equipment Center Service Area Lights was moved to MMEL Item 25-20-01.
-31-01B	D	-	0	May be inoperative for day operations.
				NOTE: Relief for the Air Conditioning Compartment, APU Compartment, Stabilizer Compartment and Electrical Equipment Center Service Area Lights was moved to MMEL Item 25-20-01.
-31-02 Cargo Loading Area Lights				
-31-02-01				
Passenger	D	11	0	
-31-02-02				
777F	D	12	0	
-37-01 Cargo Compartment Lights	С	-	-	Individual lights may be inoperative provided sufficient lighting remains for ground personnel to perform their duties.

FEDERAL AVIATION ADMIN	IISTRATI	ON		MASTER MINIMUM EQUIPMENT LIST			
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BOEING	B-///			DATE: 04/14/2014 33-6			
SYSTEM &	1.	2.	NUMBER INSTALLED				
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH			
33 LIGHTS				4. REMARKS OR EXCEPTIONS			
33 LIGITI 3		 	 				
-37-02 Main Deck Alert System (777F)							
-37-02A	С	1	0	(O) May be inoperative provided alternate procedures are established and used.			
				NOTE: Any visual and aural alert system functions that operate normally may be used.			
-37-02B	D	1	0	May be inoperative provided procedures do not require its use.			
-41-01 Wing Illumination Lights	С	2	0	May be inoperative provided ground de-icing procedures do not require their use.			
-42-01 Taxi Lights	С	2	0				
-42-02 Landing Lights							
-42-02A	С	4	2	Two may be inoperative for night operations.			
-42-02B	С	4	0	May be inoperative for day operations.			
-42-02-01							
Dim Function	С	2	0				
-42-03 Runway Turnoff Lights	С	2	0				

U.S. DEPARTMENT OF TRAN	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST					
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AIRCRAFT: BOEING B	777			REVISION NO: 20 PAGE:					
BOEING B	o- <i>111</i>			DATE: 04/14/2014 33-7					
SYSTEM &	1.	2.	NUMBER INSTALLED						
SEQUENCE			3.	3. NUMBER REQUIRED FOR DISPATCH					
NUMBERS				4. REMARKS OR EXCEPTIONS					
33 LIGHTS									
-43-01 Position Lights		·							
-43-01A	С	8	4	For night operations, all except the following minimum may be inoperative: a) One stationary red wing tip bulb, b) One stationary green wing tip bulb, and c) One stationary white bulb per wing tip.					
-43-01B	С	8	0	May be inoperative for day operations.					
-43-02 Tail Lights	D	2	0						
-44-01 Anti-Collision Light Systems (Red Strobes/White Strobes)									
-44-01A	С	2	1	For night operations, upper and lower red fuselage lights may be inoperative provided wing tip and tail white strobe lights operate normally.					
-44-01B	С	2	1	For night operations, wing tips and tail white strobe lights may be inoperative provided upper and lower red fuselage lights operate normally.					
-44-01C	С	2	0	May be inoperative for day operations.					
-45-01 LOGO Lights	D	4	0						

U.S. DEPARTMENT OF TRANSPO	ORTATIC)N					
FEDERAL AVIATION ADMINISTRA	ATION		MASTER MINIMUM EQUIPMENT LIST				
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			DATE: 04/14/2014 33-8				
SYSTEM & ITEM	. 2.	NUME	BER INSTALLED				
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH				
			4. REMARKS OR EXCEPTIONS				
33 LIGHTS							
-51-01 Interior Emergency C Lights	-	-	A random 25% of lights/signs may be inoperative provided: a) Inoperative area illumination lights are not adjacent, b) Not more than one overhead area light or exit sign at each door is inoperative, c) Cross-aisle exit signs operate normally, and d) Flight deck emergency dome light operates normally. NOTE: Lights associated with an inoperative door or slide/raft are not required.				
-51-02 Exterior Emergency C Slide Lights	-	0	May be inoperative for day operations.				
-51-02-01 -200/-200ER/-200LR A	8	7	One may be inoperative provided: a) Associated passenger entry door is considered inoperative, and b) Repairs are made within one flight day.				
-51-02-02 -300/-300ER							
-51-02-02-01 Doors 1L, 1R, 2L, 2R, A 4L, 4R, 5L and 5R	8	7	One may be inoperative provided: a) Associated passenger entry door is considered inoperative, b) Exterior emergency slide lights for doors 3L and 3R operate normally, and c) Repairs are made within one flight day. (Continued)				

U.S. DEPARTMENT OF TRANS	SPOR [*]	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINIST	TRAT	ION		MASTER MINIMOM EQUIPMENT LIST
AIRCRAFT:				REVISION NO: 20 PAGE:
BOEING B-	111			DATE: 04/14/2014 33-9
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
33 LIGHTS				
-51-02 Exterior Emergency Slide Lights (Cont'd)				
-51-02-02 -300/-300ER (Cont'd)				
-51-02-02-02				
Doors 3L and 3R	Α	6	3	Lights associated with one door may be inoperative provided: a) Associated passenger entry door is considered inoperative, b) All remaining door exterior emergency slide lights operate normally, and c) Repairs are made within one flight day.
-51-02-03				
777F	Α	2	1	One may be inoperative provided: a) Associated passenger entry door is considered inoperative, and b) Repairs are made within one flight day.
-51-03 Floor Proximity Emergency Lighting Systems (Passenger)				
-51-03-01				
Powered Escape Path Lighting System	С	-	-	A random 25% of lights may be inoperative provided inoperative floor proximity lights are not adjacent.
				NOTE: Lights associated with an inoperative door slide/raft are not required.
				(Continued)

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FEDERAL AVIATION ADMINISTR	ATION							
AIRCRAFT: BOEING B-77	7		REVISION NO: 20 PAGE:					
BOLING B 11	,		DATE: 04/14/2014 33-10					
SYSTEM &	1. 2.	NUME	BER INSTALLED					
SEQUENCE ITEM		3.	3. NUMBER REQUIRED FOR DISPATCH					
NUMBERS			4. REMARKS OR EXCEPTIONS					
33 LIGHTS								
-51-03 Floor Proximity Emergency Lighting Systems (Passenger) (Cont'd) -51-03-02 Photoluminescent Escape Path Marking System	C -	-	Four 10-inch segments of photoluminescent strip may be inoperative in each cabin zone provided: a) No more than two 10-inch segments of photoluminescent strip are inoperative in each cabin zone aisle, b) A minimum of 72 inches of photoluminescent strip must operate normally between inoperative segments, and c) Inoperative segments of photoluminescent strip must not be laterally adjacent in an aisle. NOTE 1: Photoluminescent strips associated with an inoperative door slide/raft are not required. NOTE 2: A cabin zone is the passenger cabin area between two sets of main entry door pairs.					

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	ALL AVIATION ADMINIS	SIRAT	UN		REVISION NO: 20a PAGE:
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			I		DATE: 11/05/2014 34-1
SYSTE	11 - 1/	1.	2.		BER INSTALLED
SEQUE NUMBI	INCE			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
34 NA	VIGATION				
-12-01	Mach Indications				
-12-01	4	С	2	1	(O) One may be inoperative provided flight descends to FL 290 or below, if failure of the second indication occurs in flight.
-12-01E	3	С	2	0	(O) May be inoperative provided flight remains at or below FL 290.
-12-02	True Airspeed Indications	С	2	0	
-13-01	Standby Airspeed Indicator System (Non-ISFD System)	В	1	0	 (M) May be inoperative provided: a) All ARINC 629 pitot air data modules operate normally, b) All ARINC 629 static air data modules operate normally, c) All pitot probe heater systems operate normally, d) Both AIR DATA/ATT instrument source switches operate normally, and e) SAARU data is verified available to both PFDs before each departure.
-16-01	Altitude Alerting System	A	1	0	 (O) May be inoperative provided: a) Autopilot with altitude hold and altitude capture operates normally, b) Enroute operations do not require its use, c) Airplane does not depart from a designated airport (as listed in the Operator's MEL) where repair or replacement can be made, and d) Repairs are made within three flight days. (Continued)

U.S. DEPARTMENT OF TRANSPORTATION						
	AL AVIATION ADMINIS			IN	MASTER MINIMUM EQUIPMENT LIST	
AIRCRAFT:					REVISION NO: 20a PAGE:	
	BOEING E	3-777			DATE: 11/05/2014 34-2	
0)/075	N4.0	1.	2.	NUME	BER INSTALLED	
SYSTE SEQUE	11 - 11			3.	NUMBER REQUIRED FOR DISPATCH	
NUMBE	ERS				4. REMARKS OR EXCEPTIONS	
34 NA	VIGATION					
				<u> </u>		
-16-01	Altitude Alerting System (Cont'd)					
-16-01-	01					
	Aural Alert	С	1	0	May be inoperative provided: a) Visual alert operates normally, and b) Autopilot with altitude hold and altitude capture operates normally.	
-16-01-	02					
	Visual Alert	С	1	0	May be inoperative provided: a) Aural alert operates normally, and b) Autopilot with altitude hold and altitude capture operates normally.	
-21-01 ***	Dual Total Air Temperature (TAT) Systems	С	2	1		
-21-02	Static Air Temperature (SAT) Indication	С	1	0		

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FEDERAL AVIATION ADMINISTRAT	ΓΙΟΝ		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:
	_		DATE: 11/05/2014 34-3
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE TIEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
34 NAVIGATION			4. REMARKO OK EXCEL HONO
-21-03 Air Data Inertial Reference Unit (ADIRU)			
ADIRU Faults			
-21-03-01A B	1	0	 (M) May be dispatched with faults indicated by ADIRU status message provided: a) Adequate ground navigation facilities are available, b) Non-stabilized magnetic compass operates normally, c) Approach minimums do not require use of triple channel autoland, and d) SAARU data is verified available to both PFDs before each departure.
-21-03-01B B	1	0	 (M) May be dispatched with faults indicated by ADIRU status message provided: a) Both GPS receivers operate normally, b) Both FMCs operate normally, c) Non-stabilized magnetic compass operates normally, d) Approach minimums do not require use of triple channel autoland, and e) SAARU data is verified available to both PFDs before each departure.

U.S. DEPARTMENT OF TRANSPORTATION								
FEDERAL AVIATI	ON ADMINISTR	RATIO	ON			MASTER MINIMUM EQUI	PMENT LIST	
AIRCRAFT:	DOEING D 77	77	REVISION NO: 20a PAGE:					
	BOEING B-77	7				DATE: 11/05/2014	34-4	
SYSTEM & SEQUENCE NUMBERS	ITEM	1.	2.		NUMBI	STALLED ER REQUIRED FOR DISPATCH REMARKS OR EXCEPTIONS	1	
34 NAVIGATION								
-21-04 Pitot Air D Modules (ARINC 62	Primary –							
-21-04-01 Right Pito Module	t Air Data	В	1	0	a) b) c) d) e)	normally, Right AIR DATA/ATT instrume switch operates normally, SAARU data is verified to be a to the right PFD before each of Left and center pitot probes at inspected before each depart Approach minimums do not re use.	erates perates ent source evailable departure, re ure, and	

FEDERAL AVIATION ADMINISTRAT	ION	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777		REVISION NO: 20a PAGE: DATE: 11/05/2014 34-5
SYSTEM & SEQUENCE NUMBERS 34 NAVIGATION -21-04 Pitot Air Data Modules (Primary – ARINC 629) (Cont'd) -21-04-02 Left Pitot Air Data B	2.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS (M) May be inoperative provided: a) Right and contor pitet probe heater.
Module		 a) Right and center pitot probe heater systems operate normally, b) Right and center pitot air data modules operate normally, c) Right static air data module operates normally, d) Standby airspeed indication operates normally, e) Left AIR DATA/ATT instrument source switch operates normally, f) SAARU data is verified to be available to the left PFD before each departure, g) Right and center pitot probes are inspected before each departure, and h) Approach minimums do not require its use. (Continued)

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FEDERAL AVIATION ADMINISTRATI	ION			MASTER MINIMUM EC	QUIPMENT LIST
AIRCRAFT: BOEING B-777				REVISION NO: 20a	PAGE:
DOLINO D-111	,			DATE: 11/05/2014	34-6
SYSTEM & ITEM	2.	NUME	BER IN	STALLED	
SEQUENCE ITEM NUMBERS		3.		ER REQUIRED FOR DISPAT	
	_		4.	REMARKS OR EXCEPTIONS	6
34 NAVIGATION					
-21-04 Pitot Air Data Modules (Primary - ARINC 629) (Cont'd)					
-21-04-03					
Center Pitot Air Data B Module	1	0	b c d e f)	lay be inoperative provided: Left and right pitot probe he systems operate normally, Left and right pitot air data operate normally, Left and right static air data operate normally, Standby airspeed indicatio normally, Both AIR DATA/ATT instru switches operate normally, SAARU data is verified to be to both PFDs before each of the before each departure, and Approach minimums do no use.	modules modules n operates ment source pe available departure, are inspected

U.S. DEPARTMENT OF TRANSPORTEDERAL AVIATION ADMINISTRATION			MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE: DATE: 11/05/2014 34-7
SYSTEM & ITEM SEQUENCE NUMBERS	2.	NUMI 3.	BER INSTALLED NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
34 NAVIGATION -21-05 Static Air Data Modules (Primary - ARINC 629)			
-21-05-01 Right Static Air Data C Module	1	0	 (M) May be inoperative provided: a) Left and center static air data modules operate normally, b) Left pitot air data module operates normally, c) Right AIR DATA/ATT instrument source switch operates normally, d) Standby airspeed indication operates normally, e) SAARU data is verified to be available to the right PFD before each departure, and f) Approach minimums do not require its use.
-21-05-02 Left Static Air Data C Module	1	0	 (M) May be inoperative provided: a) Right and center static air data modules operate normally, b) Right pitot air data module operates normally, c) Left AIR DATA/ATT instrument source switch operates normally, d) Standby airspeed indication operates normally, e) SAARU data is verified to be available to the left PFD before each departure, and f) Approach minimums do not require its use. (Continued)

	EPARTMENT OF TRANSPO AL AVIATION ADMINISTR		νIN	MASTER MINIMUM EQUIPMENT LIST			
AIRCR				REVISION NO: 20a PAGE:			
				DATE: 11/05/2014 34-8			
SYSTE	M& ITEM	1. 2.		BER INSTALLED			
SEQUE NUMBE	INCE		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS			
34 NA\	/IGATION						
-21-05	Static Air Data Modules (Primary - ARINC 629) (Cont'd)						
-21-05-	03						
	Center Static Air Data C Module	1	0	 (M) May be inoperative provided: a) Left and right static air data modules operate normally, b) Left and right pitot air data modules operate normally, c) Both AIR DATA/ATT instrument source switches operate normally, d) SAARU data is verified to be available to both PFDs before each departure, e) Standby airspeed indication operates normally, and f) Approach minimums do not require its use. 			
-21-06	Angle of Attack (AOA) Covane Systems		1				

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FEDERAL AVIATION ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST		
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:		
			DATE: 11/05/2014 34-9		
SYSTEM & ITEM SEQUENCE ITEM	2.		BER INSTALLED NUMBER REQUIRED FOR DISPATCH		
NUMBERS			4. REMARKS OR EXCEPTIONS		
34 NAVIGATION	ļ				
-21-07 Secondary Attitude Air Data Reference Unit (SAARU)					
-21-07-01					
Without Integrated B Standby Flight Display (ISFD) Installed	1	0	 (O) May be inoperative provided: a) Operations are conducted in Day VMC only, b) Operations are not conducted into known or forecast over-the-top conditions, c) ADIRU operates normally, d) Left, right and center pitot air data modules operate normally, e) Left, right and center static air data modules operate normally, f) Standby airspeed indicator operates normally, g) One GPS receiver operates normally, and h) Non-stabilized magnetic compass operates normally. 		
-21-07-02 With Integrated C Standby Flight Display (ISFD) Installed	1	0	 (O) May be inoperative provided: a) Approach minimums do not require the use of the SAARU, b) ADIRU operates normally, c) Left, right and center pitot air data modules operate normally, d) Left, right and center static air data modules operate normally, e) ISFD operates normally, f) One GPS receiver operates normally, and g) Non-stabilized magnetic compass operates normally. 		

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	AL AVIATION ADMINIS	TRAT	ION		
AIRCR	AFT: BOEING B-	777			REVISION NO: 20a PAGE:
	50205				DATE: 11/05/2014 34-10
SYSTE	М &	1.	2.	NUME	BER INSTALLED
SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	:K5				4. REMARKS OR EXCEPTIONS
34 NA\	/IGATION				
-21-08 ***	Integrated Standby Flight Display (ISFD)				
	Tilgrit Display (131 D)				
-21-08-	01 Attitude Indication	В	1	0	May be inoperative provided:
	Attitude indication	Ь	'	U	a) Operations are conducted in Day VMC
					only, and b) Operations are not conducted into
					known or forecast over-the-top conditions.
-21-08-	02				
	Airspeed Indication	В	1	0	 (M) May be inoperative provided: a) All ARINC 629 pitot air data modules operate normally, b) All ARINC 629 static air data modules operate normally, c) All pitot probe heater systems operate normally, d) Both AIR DATA/ATT instrument source switches operate normally, and e) SAARU data is verified available to both PFDs before each departure.
-21-08-					
	Approach Mode	С	1	0	
-21-08-					
	Heading Display	С	1	0	
-23-01	Non-Stabilized Magnetic Compass (Standby)	В	1	0	May be inoperative provided ADIRU operates normally.
-24-01 ***	Standby Attitude Indicator (Non-ISFD System)	В	1	0	May be inoperative provided: a) Operations are conducted in Day VMC only, and b) Operations are not conducted into known or forecast over-the-top conditions.

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AIRCR			1011		REVISION NO: 20a PAGE: DATE: 11/05/2014 34-11	
CVCTE	NA O	1.	2.	NUME	BER INSTALLED	
SYSTE SEQUE NUMBE	ENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH	
	VIGATION		_		4. REMARKS OR EXCEPTIONS	
-31-01	Instrument Landing System (ILS)	D	3	-	Any in excess of those required by 14 CFR may be inoperative provided approach minimums do not require their use.	Ι
-31-02	Glideslope Antenna Switching	D	3	-	Any in excess of those required by 14 CFR may be inoperative provided approach minimums do not require use of the associated ILS receiver.	I
-31-03	Localizer Antenna Switching	D	3	-	Any in excess of those required by 14 CFR may be inoperative provided approach minimums do not require use of the associated ILS receiver.	I
-32-01	Marker Beacon System	С	1	0	May be inoperative provided approach minimums do not require its use.	
-33-01	Radio Altimeter Systems	В	3	2	One may be inoperative provided approach minimums or operating procedures do not require its use.	
-34-01 ***	Microwave Landing System	D	1	0		
-35-01 ***	Para Visual Displays	D	-	0	May be inoperative provided procedures do not require their use.	
-43-01	Weather Radar System					
-43-01/		С	-	0	(O) May be inoperative provided: a) Weather radar is not required by 14 CFR, b) Reactive windshear alert (GPWS Mode 7) operates normally, and c) Alternate procedures are established and used. (Continued)	

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AIRCRAFT: BOEING B	1-777			REVISION NO: 20a PAGE:				
BOLINO	-111			DATE: 11/05/2014 34-12				
SYSTEM & ITEM	1.	2.	NUME	BER INSTALLED				
SEQUENCE NUMBERS			3.	·				
34 NAVIGATION				4. REMARKS OR EXCEPTIONS				
-43-01 Weather Radar System (Cont'd)								
-43-01B	В	-	0	(O) May be inoperative provided: a) Weather radar is not required by 14 CFR, and b) Alternate procedures are established and used.				
				NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.				
-43-01C	D	2	1					
-43-01-01 Predictive Windshear Function								
-43-01-01A	С	-	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Reactive windshear alert (GPWS Mode 7) operates normally.				
-43-01-01B	В	-	0	(O) May be inoperative provided alternate procedures are established and used.				
				NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.				
-43-01-02 *** Auto Tilt Function	С	1	0	May be inoperative provided manual tilt function operates normally.				
	С	1	0					

	TMENT OF TRANS			.,	MASTER MINIMUM EQUIPMENT LIST		
AIRCRAFT:	VIATION ADMINIS	IIXAI	ION		REVISION NO: 20a PAGE:		
	BOEING B-	777			DATE: 11/05/2014 34-13		
		1.	2.	NUME	BER INSTALLED		
SYSTEM & SEQUENCE	ITEM			3.	3. NUMBER REQUIRED FOR DISPATCH		
NUMBERS					4. REMARKS OR EXCEPTIONS		
34 NAVIGA	TION						
	fic Collision and idance System AS)	В	1	0	(M) May be inoperative provided: a) System is deactivated and secured, and b) Enroute or approach procedures do not require its use.		
	olution Advisory) Display Systems						
-45-01-01A		С	2	1	(O) One may be inoperative on the non-flying pilot side.		
-45-01-01B		С	2	0	 (O) May be inoperative provided: a) Traffic Alert (TA) visual display and audio functions operate normally, b) TA only mode is selected by the crew, and c) Enroute or approach procedures do not require its use. 		
-45-01-02							
	fic Alert (TA) blay Systems	С	2	0	 (O) May be inoperative provided: a) RA visual display and audio functions operate normally, and b) Enroute or approach procedures do not require its use. 		
-45-01-03							
Aud	io Functions	В	1	0	May be inoperative provided enroute or approach procedures do not require use of TCAS.		
-45-01-04							
*** Airs	pace Selection ction	С	-	0			

U.S. DEPARTMENT OF TRANSPO FEDERAL AVIATION ADMINISTRA		Ν	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:
BOLING B-111			DATE: 11/05/2014 34-14
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE ITEM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
34 NAVIGATION			4. REMARKS OR EXCEPTIONS
34 NAVIOATION			
-46-01 Ground Proximity Warning System (GPWS)			
-46-01-01			
GPWS Function A	1	0	 (O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within two flight days.
-46-01-01-01			
Modes 1-4 A	4	0	 (O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within two flight days.
-46-01-01-02			
Glideslope Deviation B (Mode 5)	1	0	
-46-01-01-03 Advisory Callouts (Mode 6)			
-46-01-01-03A B	-	0	(O) May be inoperative provided alternate procedures are established and used.
-46-01-01-03B C	-	0	(O) May be inoperative provided: a) Advisory callouts are not required by 14 CFR, and b) Alternate procedures are established and used.
			(Continued)

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MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT:				REVISION NO: 20a PAGE:					
BOEING B-77	7			DATE: 11/05/2014 34-15					
SVSTEM &	1.	2.	NUME	BER INSTALLED					
SEQUENCE NUMBERS			3. NUMBER REQUIRED FOR DISPATCH						
				4. REMARKS OR EXCEPTIONS					
34 NAVIGATION									
-46-01 Ground Proximity Warning System (GPWS) (Cont'd)									
-46-01-02									
Windshear Alert Mode Function (Reactive) (Mode 7)									
-46-01-02A C		1	0	(O) May be inoperative provided: a) Alternate procedures are established and used, and b) Predictive windshear operates normally.					
-46-01-02B E	3	1	0	(O) May be inoperative provided alternate procedures are established and used.					
				NOTE: Operator's alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.					
-46-01-03 Terrain Awareness E	3	1	0	(O) May be incorretive provided alternate					
Function	7	'	U	(O) May be inoperative provided alternate procedures are established and used.					
-46-01-03-01 Terrain Display Functions									
-46-01-03-01A		2	1						
-46-01-03-01B	3	2	0						
-46-01-04 *** Runway Awareness C and Advisory System		1	0						
(RAAS)									

U.S. DEPARTMENT OF TRANSPORTATION									
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRA	AFT: BOEING B-	777			REVISION NO: 20a PAGE:				
	BOEING B	111			DATE: 11/05/2014 34-16				
SYSTE	VI &	1.	2.	NUME	BER INSTALLED				
SEQUE NUMBE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH				
					4. REMARKS OR EXCEPTIONS				
34 NAV	/IGATION								
-51-01	VOR Navigation Systems	D	2	-	Any in excess of those required by 14 CFR may be inoperative.				
-53-01	ATC Transponder/ Automatic Altitude Reporting Systems								
-53-01A		D	2	1	Any in excess of those required by 14 CFR may be inoperative.				
-53-01B		В	2	0	May be inoperative provided: a) Enroute operations do not require its use, and b) Prior to flight, approval is obtained from ATC facilities having jurisdiction over the planned route of flight.				
-53-01-0)1								
***	Elementary and Enhanced Downlink Aircraft Reportable Parameters Not Required By 14 CFR	A	-	0	May be inoperative provided: a) Enroute operations do not require their use, and b) Repairs are made prior to completion of next heavy maintenance visit.				
-53-01-0 ***	02 ADS-B Squitter Transmissions								
		_	_	_					
-53-01-0)2A	С	2	0	(O) May be inoperative provided alternate procedures are established and used.				
					NOTE: Any ADS-B Out function which operates normally may be used.				
-53-01-0	02B	D	2	0	May be inoperative provided enroute operations do not require its use.				

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	AL AVIATION ADMINIS	SIRAI	ION		DEVICIONINO: 200 DAGE:
AIRCR	BOEING B	3-777			REVISION NO: 20a PAGE:
			1		DATE: 11/05/2014 34-17
SYSTE	11 - 11	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	INCE			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
34 NA\	VIGATION		i	i	
-55-01	Distance Measuring Equipment (DME)	D	2	-	Any in excess of those required by 14 CFR may be inoperative.
-57-01 ***	ADF Systems	D	2	-	Any in excess of those required by 14 CFR may be inoperative.
-58-01	Global Positioning Systems				
-58-01 <i>A</i>	A	С	2	0	May be inoperative provided: a) Enroute operations do not require their use, and b) SAARU operates normally.
-58-01E	3	D	2	1	One may be inoperative provided enroute operations do not require its use.
-61-01	Flight Management Computing Systems (FMCS)				
-61-01-	01				
	With AIMS-1	С	2	1	(M) One may be inoperative provided: a) Remaining FMC is verified to operate
					normally, b) Enroute operations do not require its
					use, and
					 Flight remains within 180 minutes of landing at a suitable airport.
-61-01-	02				
	With AIMS-2	С	2	1	 (M) One may be inoperative provided: a) Remaining FMC is verified to operate normally, and b) Enroute operations do not require its use.
					(Continued)

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MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT: REVISION NO: 20a PAGE:									
BOEING B-7	777			REVISION NO. 200 PAGE.					
		ı		DATE: 11/05/2014 34-18					
SYSTEM &	1.	2.	2. NUMBER INSTALLED						
SEQUENCE ITEM			3. NUMBER REQUIRED FOR DISPATCH						
NUMBERS				4. REMARKS OR EXCEPTIONS					
34 NAVIGATION									
		<u> </u>							
-61-01 Flight Management									
Computing Systems (FMCS)									
(Cont'd)									
-61-01-03									
Navigation Databases	С	2	0	(O) May be out of currency provided:					
				 a) Current aeronautical charts are used to verify navigation fixes before dispatch, 					
				 b) Procedures are established and used to verify status and suitability of navigation 					
				facilities used to define route of flight,					
				and c) Approach navigation radios are verified					
				to be properly tuned and identified.					
-61-02 FMC Selector	С	1	0						
01 02 1 WO OGIGOLOI		'							
-61-03 Control Display Units									
(CDU)									
-61-03-01									
Passenger	С	3	2	(O) Center CDU may be inoperative.					
-61-03-02									
777F	С	3	2	Center CDU may be inoperative.					

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FEDERAL AVIATION ADMINISTRATION										
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	50210 5				DATE: 11/05/2014 35-1					
SYSTE	M &	1.	2.	NUME	BER INSTALLED					
SEQUE	ENCE ITEM			3. NUMBER REQUIRED FOR DISPATCH						
NUMBI	=R5				4. REMARKS OR EXCEPTIONS					
35 OX	YGEN									
-11-01	Crew Oxygen System									
-11-01-	01									
-11-01-	Crew Oxygen Pressure Indication System	В	1	0	 (M) May be inoperative provided: a) Oxygen supply is verified to be above minimum required before each departure, and b) Crew oxygen shutoff valve(s) is verified open. 					
-11-01-	01-01									
	Overboard Discharge Indicator Disc	В	1	0	May be damaged or missing.					
-11-01-	02									
	Crew Oxygen Solenoid Bleed Valve	В	1	0	 (M) May be inoperative provided: a) Solenoid bleed valve is deactivated closed, and b) Crew oxygen shutoff valve(s) is verified open. 					
-21-01	Passenger Oxygen System (Chemical or Gaseous) (Passenger)	В	1	0	 (O) May be inoperative provided: a) Altitude limitations comply with 14 CFR, b) Portable oxygen supplies comply with 14 CFR, c) Both air conditioning packs operate normally, d) Pressurization system operates normally, e) Both engine bleed systems operate normally, and f) Passengers are appropriately briefed. 					

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MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT: BOEING B-7	77	REVISION NO: 20a PAGE:							
				DATE: 11/05/2014 35-2					
SYSTEM & ITEM	1.	2.	NUMBER INSTALLED						
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH					
				4. REMARKS OR EXCEPTIONS					
35 OXYGEN									
-21-02 Passenger Oxygen Service Units (Passenger)									
-21-02A	В	-	0	(M) May be inoperative provided: a) Associated seats are blocked and placarded to prevent occupancy, b) Associated flight attendant seat is considered inoperative, and c) Associated lavatory door is locked closed and placarded, INOPERATIVE - DO NOT ENTER.					
-21-02B	В	-	0	NOTE: This provision is not intended to prohibit inspections by crewmembers. (O) May be inoperative provided:					
-21-025	ם		o	a) Altitude limitations comply with 14 CFR, b) Portable oxygen supplies comply with 14 CFR, c) Both air conditioning packs operate normally, d) Pressurization system operates normally, e) Both engine bleed systems operate normally, and f) Passengers are appropriately briefed.					
-21-03 Passenger/ Supernumerary Oxygen Automatic Presentation System	В	1	0	(O) May be inoperative provided: a) Manual deployment system operates normally, and b) Flight remains at or below FL 300.					
-21-04 Passenger Oxygen *** ON Light	С	1	0						

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MASTER MINIMUM EQUIPMENT LIST									
AFT:		REVISION NO: 20a PAGE:							
BOEING B	-777			DATE: 11/05/2014 35-3					
:M 9	1.	2.	NUME	BER INSTALLED					
ENCE			3. NUMBER REQUIRED FOR DISPATCH						
				4. REMARKS OR EXCEPTIONS					
YGEN									
Crew/Attendant Rest Oxygen Modules (Passenger)									
01									
Seat Modules	В	-	-	(M) May be inoperative provided associated seat is blocked and placarded to prevent occupancy.					
02 Bunk Modules	В	-	-	(M) May be inoperative provided a conspicuous barrier strap or rope is placed across the associated bunk with a placard attached stating the bunk is not be used.					
03									
Vanity Module (Includes Sink With Drink Storage Area)	В	-	-	(M) May be inoperative provided a conspicuous barrier strap or rope is placed across the associated vanity entrance with a placard attached stating the vanity is not to be used.					
Supernumerary Seats/Crew Rest/Lavatory Gaseous Oxygen System (777F)	В	1	0	 (M)(O) May be inoperative provided: a) Supernumerary seats and crew rest bunks are blocked and placarded DO NOT OCCUPY, b) An adequate portable oxygen dispensing unit (bottle and mask) is available in the lavatory, c) Personnel address system operates normally, and d) Crew members/supernumeraries are appropriately briefed. (Continued) 					
	AFT: BOEING B EM & ITEM ENCE ITEM ERS YGEN Crew/Attendant Rest Oxygen Modules (Passenger) O1 Seat Modules O2 Bunk Modules Uncludes Sink With Drink Storage Area) Supernumerary Seats/Crew Rest/Lavatory Gaseous Oxygen System	AFT: BOEING B-777 IM & ITEM ERS YGEN Crew/Attendant Rest Oxygen Modules (Passenger) O1 Seat Modules B O2 Bunk Modules B O3 Vanity Module (Includes Sink With Drink Storage Area) Supernumerary Seats/Crew Rest/Lavatory Gaseous Oxygen System BOEING B-777 1. BOEING B-777 BOEING B-777 BOEING B-777 BUTTEM ERS 1. BUTTEM ERS POS Supernumerary B Supernumerary Seats/Crew Rest/Lavatory Gaseous Oxygen System	AFT: BOEING B-777 EM & ITEM	AFT: BOEING B-777 In Main Series ITEM ERS TYGEN Crew/Attendant Rest Oxygen Modules (Passenger) O1 Seat Modules B O2 Bunk Modules B Unit Storage Area) Supernumerary B 1 0 Supernumerary Seats/Crew Rest/Lavatory Gaseous Oxygen System					

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U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST										
FEDERAL AVIATION ADMINIS	AIRCRAFT: REVISION NO: 20a PAGE:									
BOEING B-	777									
			N 11 18 45	DATE: 11/05/2014 35-4						
SYSTEM & ITEM	1.	2.	NUMBER INSTALLED							
SEQUENCE TILW NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS						
35 OXYGEN				4. REWARKS OR EXCEPTIONS						
-21-06 Supernumerary *** Seats/Crew Rest/Lavatory Gaseous Oxygen System (777F) (Cont'd)										
-21-06-01										
Left Circuit	В	1	0	 (M)(O) May be inoperative provided: a) Left supernumerary seat is blocked and placarded DO NOT OCCUPY, b) Each crew rest bunk without an adequate portable oxygen dispensing unit (bottle and mask) is blocked and placarded DO NOT OCCUPY, c) For crew rest used, personnel address system operates normally, and d) Crew members/supernumeraries are appropriately briefed. 						
-21-06-02	D	1	0	(M)(O) May be ineperative provided:						
Center Circuit	В	1	0	 (M)(O) May be inoperative provided: a) Each center supernumerary seat is blocked and placarded DO NOT OCCUPY, b) An adequate portable oxygen dispensing unit (bottle and mask) is available in the lavatory, c) Personnel address system operates normally, and d) Crew members/supernumeraries are appropriately briefed. 						
-21-06-03 Right Circuit	В	1	0	 (M)(O) May be inoperative provided: a) Right supernumerary seat is blocked and placarded DO NOT OCCUPY, and b) Crew members/supernumeraries are appropriately briefed. 						

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U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST TO BE A CONTROL OF TRANSPORTATION										
FEDERAL AVIATION ADMINISTRATION AIRCRAFT: REVISION NO: 20a PAGE:										
AIRCR	AFT: BOEING B-	777			REVISION NO: 20a PAGE:					
			ı		DATE: 11/05/2014 35-5					
SYSTE	M &	1.	2.	NUMBER INSTALLED						
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH					
INUIVIDE	-RO				4. REMARKS OR EXCEPTIONS					
35 OX	YGEN									
-21-07 ***	Supernumerary Seats (Only) Gaseous Oxygen System (777F)	В	-	0	(M)(O) May be inoperative provided: a) Affected supernumerary seat is blocked and placarded DO NOT OCCUPY, and b) Crew members/supernumeraries are appropriately briefed.					
-21-08 ***	Lavatory Chemical Oxygen System (777F)	В	1	0	 (O) May be inoperative provided: a) An adequate portable oxygen dispensing unit (bottle and mask) is available in the lavatory, b) Personnel address system operates normally, and c) Crew members/supernumeraries are appropriately briefed. 					
-21-09 ***	Crew Rest Chemical Oxygen Systems (777F)	В	-	0	 (M)(O) May be inoperative provided: a) Each crew rest bunk without an adequate portable oxygen dispensing unit (bottle and mask) is blocked and placarded DO NOT OCCUPY, b) For crew rest used, personnel address system operates normally, and c) Crew members/supernumeraries are appropriately briefed. 					
-22-01 ***	Passenger/ Supernumerary Oxygen Pressure Indication System (Gaseous)	С	1	0	(M) May be inoperative provided: a) Oxygen supply is verified to be above minimum required before each departure, and b) Associated oxygen shutoff valves are verified open before each departure.					
-22-01-	01 Overboard Discharge	В	1	0	May be damaged or missing.					
	Indicator Disc	ם	1	U	way be damaged of fillssling.					

U.S. DEPARTMENT OF TRANSPORTATION									
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT: BOEING B-777			REVISION NO: 20a	PAGE:					
			DATE: 11/05/2014	35-6					
SYSTEM &	2. N	2. NUMBER INSTALLED							
SEQUENCE ITEM		3. NUMB	ER REQUIRED FOR DISPATO	Н					
NUMBERS		4.	REMARKS OR EXCEPTIONS						
35 OXYGEN									
-31-01 Portable Oxygen D Dispensing Units (Or Equivalent) (Bottle and Mask)	-	may l	replaced, serviced, or remove next available maintenance f	vided: ceable out the are ed at the acility, and ssociated					
-31-02 Protective Breathing D Equipment (PBE)	-	be in	n excess of those required by 14 operative or removed provided landing is removed or obscured.						

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST									
FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT: BOEING B-777		REVISION NO: 20 PAGE: DATE: 04/14/2014 36-1							
		N.II. IN 45							
SYSTEM & ITEM	2.		BER INSTALLED						
SEQUENCE TILM NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS						
36 PNUEMATIC	1		I. REWARKS ON EXCEPTIONS						
-00-01 Air Supply and Cabin Pressure Controllers (ASCPC)									
-00-01-01 Primary (Digital) Controllers C	2	1	 (M)(O) One may be inoperative deactivated provided: a) Both ASCPC backup (analog) controllers are verified to operate normally, b) Both associated CTC channels are verified to operate normally once each flight day, c) Opposite engine bleed system operates normally, d) Center system hydraulic demand pump on opposite side operates normally, and e) Appropriate performance adjustments are applied. 						

U.S. DEPARTMENT OF TRANSPORTATION									
FEDERAL AVIATION ADMINISTRATION MASTER MINIMUM EQUIPMENT LIST									
AIRCRAFT: BOEING B-77	77			REVISION NO: 20	PAGE:				
BOEINO B-11	,			DATE: 04/14/2014	36-2				
SVSTEM &	1. 2.	NUME	BER IN	STALLED					
SEQUENCE TIEM		3.	NUMB	ER REQUIRED FOR DISPATC	1				
NUMBERS			4.	REMARKS OR EXCEPTIONS					
36 PNUEMATIC		İ	 						
-11-01 Pressure Regulating and Shutoff Systems (PRSOV, PRSOVC)									
-11-01-01									
	C 2	1	associonope and b c d d e f)	 Both outflow valves operate r Airplane remains at or below APU is used as air source for system hydraulic demand put takeoff and landing, and 	closed, n operates witch systems n operates formally, FL 350, center mps for				

U.S. DEPARTMENT OF TRANSPORTATION									
FEDERAL AVIATION ADMINISTRATION MASTER MINIMUM EQUIPMENT LIST									
AIRCRAFT: BOEING B-777				REVISION NO: 20	PAGE:				
BOEING B-111				DATE: 04/14/2014	36-3				
SYSTEM & JTEM	2.	NUME	BER IN	STALLED					
SEQUENCE NUMBERS		3.	NUMB	ER REQUIRED FOR DISPATC	Н				
			4.	4. REMARKS OR EXCEPTIONS					
36 PNUEMATIC			 						
-11-01 Pressure Regulating and Shutoff Systems (PRSOV, PRSOVC) (Cont'd)									
-11-01-02									
-200/-200ER C (With PRR 61980 or Equivalent Incorporated)	2	1	associonopei a b b c c d d e f f)	 Both outflow valves operate r APU is used as air source for system hydraulic demand pu takeoff and landing, and 	closed, m operates switch systems n operates normally, center mps for				

U.S. DEPARTMENT OF TRANSPORTATION									
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT: BOEING B-	777				REVISION NO: 20	PAGE:			
BOEING B-	111				DATE: 04/14/2014	36-4			
SYSTEM & ITEM SEQUENCE NUMBERS	1.	NUMBER INSTALLED NUMBER REQUIRED FOR DISPATCH A. REMARKS OR EXCEPTIONS							
36 PNUEMATIC					inemplating on Excell Figure				
-11-01 Pressure Regulating and Shutoff Systems (PRSOV, PRSOVC) (Cont'd)									
-11-01-03 -300 (Without SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (Without PRR 61980 or Equivalent Incorporated)	C	2	1	associonope a b c d e f) g h	remains OFF, Left and right bleed isolation operate normally, Center bleed isolation system normally, Both packs operate normally, Both outflow valves operate reprocedures are established a verify forward cargo comparting remains empty or contains or empty cargo handling equipm (ballast may be loaded in ULI away kits, APU is used as air source for system hydraulic demand put takeoff and landing, and	closed, n operates witch systems n operates cormally, nd used to ment nly ballast, nent Os), or fly center mps for ustments hich items he fly away			

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST									
FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT: BOEING B-777				REVISION NO: 20	PAGE:				
				DATE: 04/14/2014	36-5				
SYSTEM & 1.	2.	NUME	BER IN	STALLED					
SEQUENCE ITEM		3.	NUMB	ER REQUIRED FOR DISPATO	H				
NUMBERS			4.	REMARKS OR EXCEPTIONS					
36 PNUEMATIC									
-11-01 Pressure Regulating and Shutoff Systems (PRSOV, PRSOVC) (Cont'd)									
-11-01-04									
-300 (With CSB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (With PRR 61980 or Equivalent Incorporated)	2	1	associnope a b c d f) g h i)	remains OFF, Left and right bleed isolation operate normally, Center bleed isolation system normally, Both packs operate normally Both outflow valves operate	c be closed, m operates switch systems n operates normally, r center mps for				

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION							
AIRCRAFT: BOEING B-777	REVISION NO: 20 PAGE:						
		DATE: 04/14/2014 36-6					
SYSTEM & ITEM SEQUENCE NUMBERS	2.		BER INSTALLED NUMBER REQUIRED FOR DISPATCH				
36 PNUEMATIC			4. REMARKS OR EXCEPTIONS				
-11-01 Pressure Regulating and Shutoff Systems (PRSOV, PRSOVC) (Cont'd)							
-11-01-05 -200LR/-300ER C	2	1	(M)(O) One valve (PRSOV) and/or the associated controller (PRSOVC) may be inoperative provided: a) Associated PRSOV is locked closed, b) Opposite engine bleed system operates normally, c) Associated engine bleed air switch remains OFF, d) Left and right bleed isolation systems operate normally, e) Center bleed isolation system operates normally, f) Both packs operate normally, g) Both outflow valves operate normally, h) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and i) Appropriate performance adjustments are applied. (Continued)				

U.S. DEPARTMENT OF TRANSPOFEDERAL AVIATION ADMINISTRA		ON	MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT: BOEING B-777		REVISION NO: 20 PAGE:				
5021110 5 777	.	DATE: 04/14/2014 36-7				
SYSTEM & ITEM	. 2.	NUMBER INSTALLED				
SEQUENCE THEM NUMBERS		3.				
36 PNUEMATIC			4. REMARKS OR EXCEPTIONS			
OU THOUMATIO						
-11-01 Pressure Regulating and Shutoff Systems (PRSOV, PRSOVC) (Cont'd)						
-11-01-06 777F C	2	1	 (M)(O) One valve (PRSOV) and/or the associated controller (PRSOVC) may be inoperative provided: a) Associated PRSOV is locked closed, b) Opposite engine bleed system operates normally, c) Associated engine bleed air switch remains OFF, d) Left and right bleed isolation systems operate normally, e) Center bleed isolation system operates normally, f) Both packs operate normally, g) Both outflow valves operate normally, h) Both ECSMCs operate normally, i) Both ECSMCs operate normally, j) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and k) Appropriate performance adjustments are applied. 			

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST							
FEDERAL AVIATION ADMINISTR	RATION						
AIRCRAFT: BOEING B-77	7	REVISION NO: 20 PAGE:					
BOLING B 17	,		DATE: 04/14/2014 36-8				
SVSTEM &	1. 2.	NUME	BER INSTALLED				
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH				
NUMBERS			4. REMARKS OR EXCEPTIONS				
36 PNUEMATIC	ļ						
-11-02 High Pressure Shutoff Valves (HPSOV)							
-11-02-01							
-200/-200ER (Without PRR 61980 or Equivalent Incorporated)							
-11-02-01A	C 2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, d) Airplane remains at or below FL 350, and e) Associated engine bleed air is cycled OFF, then ON at 55% N1 or greater before takeoff. 				
-11-02-01B	C 2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) Airplane remains at or below FL 350, j) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and k) Appropriate performance adjustments are applied. (Continued) 				

U.S. DEPARTMENT OF TRANSPORTATION							
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION							
AIRCRAFT:			REVISION NO: 20 PAGE:				
BOEING B-777			DATE: 04/14/2014 36-9				
SYSTEM &	2.	NUME	BER INSTALLED				
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH				
NUMBERS			4. REMARKS OR EXCEPTIONS				
36 PNUEMATIC							
-11-02 High Pressure Shutoff Valves (HPSOV) (Cont'd)							
-11-02-02 -200/-200ER (With PRR 61980 or Equivalent Incorporated)							
-11-02-02A C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, and d) Associated engine bleed air is cycled OFF, then ON at 55% N1 or greater before takeoff. 				
-11-02-02B C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and j) Appropriate performance adjustments are applied. (Continued) 				

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST										
FEDER	AL AVIATION ADMINIST	RATI	ON			IVIASTER IVIINIIVIOIVI EQUI	PINENI LIST			
AIRCRA		777				REVISION NO: 20	PAGE:			
	BOEING B-	111				DATE: 04/14/2014	36-10			
SYSTE	M & ITEM	1.	2.							
SEQUENCE NUMBERS				3.		ER REQUIRED FOR DISPATCH	1			
	JEMATIC			4. REMARKS OR EXCEPTIONS						
30 FIN	DEMIATIO				 					
-11-02	High Pressure Shutoff Valves (HPSOV) (Cont'd)									
-11-02-0	03									
	-300 (Without SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (Without PRR 61980 or Equivalent Incorporated)									
-11-02-(D3A	C	2	1	a b c d	Opposite engine bleed system normally, Both outflow valves operate normally, Procedures are established an verify forward cargo compartment remains empty or contains on empty cargo handling equipm (ballast may be loaded in ULD away kits, and	closed, n operates ormally, nd used to nent ly ballast, ent 0s), or fly s cycled reater nich items ne fly away			

U.S. DEPARTMENT OF TRANSPORTATION							
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION							
AIRCRAFT: BOEING B-777		REVISION NO: 20 PAGE:					
BOLING B-111		DATE: 04/14/2014 36-11					
SYSTEM & 1.	2. NUN	MBER INSTALLED					
SEQUENCE NUMBERS	3.	NUMBER REQUIRED FOR DISPATCH					
		4. REMARKS OR EXCEPTIONS					
36 PNUEMATIC							
-11-02 High Pressure Shutoff Valves (HPSOV) (Cont'd) -11-02-03 -300 (Without SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or							
(Without PRR 61980 or Equivalent Incorporated) (Cont'd)							
-11-02-03B C	2 1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) Procedures are established and used to verify forward cargo compartment remains empty or contains only ballast, empty cargo handling equipment (ballast may be loaded in ULDs), or fly away kits, j) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and k) Appropriate performance adjustments are applied. 					
		NOTE: Operator MELs must define which items are approved for inclusion in the fly away kits and which materials can be used as ballast.					

U.S. DEPARTMENT OF TRANSPORTATION								
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION								
AIRCRAFT:		REVISION NO: 20 PAGE:						
BOEING B-777			DATE: 04/14/2014 36-12					
1.	2.	NUME	BER INSTALLED					
SYSTEM & ITEM SEQUENCE		3. NUMBER REQUIRED FOR DISPATCH						
NUMBERS			4. REMARKS OR EXCEPTIONS					
36 PNUEMATIC								
-11-02 High Pressure Shutoff Valves (HPSOV) (Cont'd)								
-11-02-04								
-300 (With SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (With PRR 61980 or Equivalent Incorporated)								
-11-02-04A C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, and d) Associated engine bleed air is cycled OFF, then ON at 55% N1 or greater before takeoff. 					
-11-02-04B C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and j) Appropriate performance adjustments are applied. 					

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST									
FEDERAL AVIATION ADMINIST	RATI	ION							
AIRCRAFT: BOEING B-777				REVISION NO: 20 PAGE:					
		T		DATE: 04/14/2014 36-13					
SYSTEM & ITEM	1.	2.	NUME	BER INSTALLED					
SEQUENCE NUMBERS			3. NUMBER REQUIRED FOR DISPATCH						
				4. REMARKS OR EXCEPTIONS					
36 PNUEMATIC									
-11-02 High Pressure Shutoff Valves (HPSOV) (Cont'd)									
-200LR/-300ER									
-11-02-05A	C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, and d) Associated engine bleed air is cycled OFF, then ON at 55% N1 or greater before takeoff. 					
-11-02-05B	C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and j) Appropriate performance adjustments are applied. (Continued) 					

J.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION								
AIRCRAFT: BOEING B-7		REVISION NO: 20 PAGE:						
		•		DATE: 04/14/2014 36-14				
SYSTEM & ITEM	1.	2.		BER INSTALLED				
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
36 PNUEMATIC		-						
-11-02 High Pressure Shutoff Valves (HPSOV) (Cont'd)								
-11-02-06 777F								
-11-02-06A	С	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, and d) Associated engine bleed air is cycled OFF, then ON at 55% N1 or greater before takeoff. 				
-11-02-06B	C	2	1	 (M)(O) One may be inoperative provided: a) Inoperative HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) Both ECSMCs operate normally, j) Both ECSMCs operate normally, k) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and l) Appropriate performance adjustments are applied. 				

U.S. DEPARTMENT OF TRANSPORTATION							
FEDERAL AVIATION ADMINISTRA	ΓΙΟΝ			MASTER MINIMUM E	EQUIPMENT LIST		
AIRCRAFT:				REVISION NO: 20	PAGE:		
BOEING B-777			1	DATE: 04/14/2014	36-15		
SYSTEM & ITEM	2.	NUME	BER INS	TALLED	•		
SEQUENCE ITEM		3.	NUMBE	NUMBER REQUIRED FOR DISPATCH			
NUMBERS			4. R	EMARKS OR EXCEPTION	NS		
36 PNUEMATIC							
-11-03 Intermediate Pressure Check Valves (IPCV)							
-11-03-01							
-200/-200ER C (Without PRR 61980 or Equivalent Incorporated)			a) b) c) d) e) f) g)	May be inoperative open passociated HPSOV is loc Associated PRSOV is loc Opposite engine bleed sy normally, Associated engine bleed remains OFF, Left and right bleed isolation sysnormally, Center bleed isolation sysnormally, Both packs operate normally, Both packs operate normally, Both outflow valves operal Airplane remains at or be APU is used as air source system hydraulic demand takeoff and landing, and Appropriate performance are applied. Sued)	ked closed, ked closed, stem operates air switch ion systems stem operates ally, ate normally, low FL 350, e for center l pumps for		

U.S. DEPARTMENT OF TRANSPORTATION								
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AIRCRAFT:			REVISION NO: 20	PAGE:				
BOEING B-777				DATE: 04/14/2014	36-16			
SYSTEM & JTEM	2.	2. NUMBER INSTALLED						
SEQUENCE ITEM		3.	NUMB	NUMBER REQUIRED FOR DISPATCH				
NUMBERS		4. REMARKS OR EXCEPTIONS						
36 PNUEMATIC			ļ					
-11-03 Intermediate Pressure Check Valves (IPCV) (Cont'd)								
-11-03-02			(5.1)					
-200/-200ER C (With PRR 61980 or Equivalent Incorporated)			a b c d e f) g h i)	normally, Associated engine bleed air remains OFF, Left and right bleed isolation operate normally, Center bleed isolation systemormally, Both packs operate normally, Both outflow valves operate APU is used as air source for system hydraulic demand put takeoff and landing, and	d closed, d closed, m operates switch systems m operates n operates normally, or center umps for			

U.S. DEPARTMENT OF TRANSPORTATION									
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION									
AIRCRAFT:				REVISION NO: 20	PAGE:				
BOEING B-777			DATE: 04/14/2014	36-17					
SYSTEM & ITEM	2.	2. NUMBER INSTALLED							
SEQUENCE TEM		3. NUMBER REQUIRED FOR DISPATCH							
NUMBERS			4.	REMARKS OR EXCEPTIONS					
36 PNUEMATIC									
-11-03 Intermediate Pressure Check Valves (IPCV) (Cont'd)									
-11-03-03									
-300 (Without C SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (Without PRR 61980 or Equivalent Incorporated)			(a) (b) (c) (d) (d) (e) (f) (j) (j) (k)	normally, Associated engine bleed air s remains OFF, Left and right bleed isolation s operate normally, Center bleed isolation system normally, Both packs operate normally, Both outflow valves operate n Procedures are established a verify forward cargo comparter remains empty or contains on empty cargo handling equipm (ballast may be loaded in ULD away kits, APU is used as air source for system hydraulic demand pur takeoff and landing, and Appropriate performance adju are applied. Coperator MELs must define we are approved for inclusion in th kits and which materials can b ballast.	closed, closed, n operates witch systems operates ormally, nd used to nent ly ballast, lent Os), or fly center mps for ustments hich items he fly away				

U.S. DEPARTMENT OF TRANSPORTATION						
FEDERAL AVIATION ADMINISTRAT	ION			MASTER MINIMUM EQ	UIPMENT LIST	
AIRCRAFT:				REVISION NO: 20	PAGE:	
BOEING B-777				DATE: 04/14/2014	36-18	
SYSTEM & JTEM	2.	NUME	BER IN	STALLED		
SEQUENCE NUMBERS		3.	NUMB	ER REQUIRED FOR DISPATO	CH	
			4.	REMARKS OR EXCEPTIONS		
36 PNUEMATIC						
-11-03 Intermediate Pressure Check Valves (IPCV) (Cont'd)						
-11-03-04			(1.1) (6			
-300 (With C SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (With PRR 61980 or Equivalent Incorporated)	-		ab c d e f) gh i)	normally, Associated engine bleed air remains OFF, Left and right bleed isolatior operate normally, Center bleed isolation syste normally, Both packs operate normall; Both outflow valves operate APU is used as air source for system hydraulic demand putakeoff and landing, and	d closed, d closed, em operates switch a systems m operates /, normally, or center umps for	

U.S. DEPARTMENT OF TRANSPOR	RTATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTRA	ΓΙΟΝ		IVII CI EIX IVIII III EIGI EIGI
AIRCRAFT:			REVISION NO: 20 PAGE:
BOEING B-777			DATE: 04/14/2014 36-19
SYSTEM & JTEM	2.	NUME	BER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
36 PNUEMATIC			
-11-03 Intermediate Pressure Check Valves (IPCV) (Cont'd)			
-11-03-05			
-200LR/-300ER C	2	1	 (M)(O) One may be inoperative open provided: a) Associated HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and j) Appropriate performance adjustments are applied. (Continued)

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U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION							
AIRCRAFT:	ION		REVISION NO: 20 PAGE:				
BOEING B-777			DATE: 04/14/2014 36-20				
1.	2.	NIIMR	ER INSTALLED				
SYSTEM & ITEM SEQUENCE	۷.		NUMBER REQUIRED FOR DISPATCH				
NUMBERS		[4. REMARKS OR EXCEPTIONS				
36 PNUEMATIC							
-11-03 Intermediate Pressure Check Valves (IPCV) (Cont'd)							
-11-03-06							
777F C	2	1	 (M)(O) One may be inoperative open provided: a) Associated HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) Both recirculation fans operate normally, j) Both ECSMCs operate normally, k) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and l) Appropriate performance adjustments are applied. 				
-11-04 Precoolers C	2	1	 (M)(O) Airplane may be operated with damage to one precooler provided: a) It is verified that precooler airflow is not completely blocked, b) Precooler bleed air leakage is verified within normal limits, and c) Opposite engine bleed system operates normally. 				

U.S. DEPARTMENT OF TRANSPORTATION								
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION								
AIRCRAFT: BOEING B-777		REVISION NO: 20 PAGE:						
			DATE: 04/14/2014 36-21					
SYSTEM & ITEM 1. SEQUENCE	2.		BER INSTALLED NUMBER REQUIRED FOR DISPATCH					
NUMBERS		0.	4. REMARKS OR EXCEPTIONS					
36 PNUEMATIC								
-11-05 Fan Air Modulation C Valves (FAMV)	2	1	 (M)(O) One may be inoperative provided: a) Valve is locked full open, b) Opposite engine bleed system operates normally, and c) Appropriate performance adjustments are applied. 					
-12-01 Left and Right Isolation Systems (Valve and/or Indication)								
-12-01A C	2	1	 (M)(O) One may be inoperative provided: a) Valve is locked closed after engine start, b) Associated valve switch remains in the CLOSED position, c) Center bleed isolation system operates normally, d) Both engine bleed systems operate normally, e) Isolation valve on opposite side is selected CLOSED for takeoff and landing, and selected AUTO with flaps up, and f) APU is used as air source for center system hydraulic demand pumps for takeoff and landing. 					
-12-01B C	2	1	 (M)(O) One may be inoperative locked open provided: a) Both center system hydraulic demand pumps operate normally, and b) Appropriate performance adjustments are applied. 					

U.S. DEPARTMENT OF TRANSPORTATION							
FEDERAL AVIATION ADMINIS	TRATI	ION		MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT:				REVISION NO: 20 PAGE:			
BOEING B-	777			DATE: 04/14/2014 36-22			
SYSTEM &	1.	2.	NUME	BER INSTALLED			
SEQUENCE ITEM NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH			
				4. REMARKS OR EXCEPTIONS			
36 PNUEMATIC							
-12-02 Center Isolation System (Valve and/or Indication)							
-12-02A	С	1	0	 (M)(O) May be inoperative provided: a) Valve is locked closed after engine start, b) Both center system hydraulic demand pumps operate normally, c) Left and right isolation valves operate normally, d) Both engine bleed systems operate normally, and e) Appropriate performance adjustments are applied. 			
-12-02B	С	1	0	 (M)(O) May be inoperative provided: a) Valve is locked open, b) Left and right isolation valves are selected CLOSED for takeoff and landing, c) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and d) Left or right isolation valve is selected AUTO with flaps up. 			
-12-03 APU Bleed Air Shutoff System (Valve and/or Indications)	С	1	0	 (M)(O) May be inoperative provided: a) Other procedures do not require APU as a pneumatic source, b) Valve is locked closed, c) APU bleed switch remains OFF, and d) Flight remains within 180 minutes of landing at a suitable airport. NOTE: APU may be used for electrical power. (Continued) 			

U.S. DEPARTMENT OF TRANS	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINIS	TRAT	ION		
AIRCRAFT: BOEING B-	-777			REVISION NO: 20 PAGE:
BOEII10 B				DATE: 04/14/2014 36-23
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE TEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
36 PNUEMATIC				
-12-03 APU Bleed Air Shutoff System (Valve and/or Indications) (Cont'd)				
-12-03-01 Valve Indications				
-12-03-01A	С	1	0	 (M)(O) May be inoperative provided: a) Other procedures do not require use of the APU, b) APU bleed air valve is verified to operate normally, and c) Flight remains within 180 minutes of landing at a suitable airport.
-12-03-01B	С	1	0	 (M)(O) May be inoperative provided: a) Other procedures do not require APU as a pneumatic source, b) APU bleed air valve is verified to operate normally before each departure, c) APU bleed switch remains OFF for flight, and d) Flight remains within 180 minutes of landing at a suitable airport. NOTE: APU may be used for electrical power and for pneumatic power for ground operations only.
-20-01 Air Synoptic Display	С	1	0	

	EPARTMENT OF TRANS			VIN	MASTER MINIMUM EQUIPMENT LIST
AIRCR	AL AVIATION ADMINIST	IKAI	ION	REVISION NO: 20 PAGE:	
, un cort	BOEING B-7	777			
					DATE: 04/14/2014 36-24
SYSTE	11 - 11	1.	2.		BER INSTALLED
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
36 PNI	JEMATIC		1		4. REMARKS OR EXCEPTIONS
JO 1 140	JEW/K110			ļ	
-20-02	Engine Bleed Air Valve OFF Lights	С	2	0	May be inoperative provided the associated Air Supply and Cabin Pressure Controller (ASCPC) operates normally.
-20-03	Bleed Air Isolation Valve CLOSED Lights	С	3	0	
-20-04	APU Bleed Air Valve OFF Light	С	1	0	
-21-01	Manifold Pressure/Flow Sensing Systems	С	2	1	One may be inoperative provided the associated pack flow control valve inlet pressure sensor operates normally.
-21-02	Intermediate Pressure Sensing Systems	С	2	1	
-22-01	Manifold Temperature Sensing Systems				
-22-02-	01				
	-200/-200ER (Without PRR 61980 or Equivalent Incorporated)				
	-22-02-01A	С	2	1	 (M)(O) One may be inoperative provided: a) Associated HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, d) Airplane remains at or below FL 350, e) Associated engine bleed air switch is cycled OFF, then ON at 55% N1 or greater before takeoff, and f) Appropriate performance adjustments are applied. (Continued)

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIS									
FEDER	FEDERAL AVIATION ADMINISTRATION								
AIRCRAFT: BOEING B-777						REVISION NO: 20	PAGE:		
	BOEING B-	111				DATE: 04/14/2014	36-25		
SYSTE	M 2	1.	2.	NUME	BER INS	TALLED			
SEQUE	NCE			3.	NUMBE	R REQUIRED FOR DISPA	TCH		
NUMBE	ERS				4. REMARKS OR EXCEPTIONS				
36 PNI	JEMATIC								
-22-01	Manifold Temperature Sensing Systems (Cont'd)								
-22-02-(-200/-200ER (Without PRR 61980 or Equivalent Incorporated) (Cont'd)								
-22-02-(O1B	C	2	1	a)	remains OFF, Left and right bleed isolati operate normally, Center bleed isolation sys normally, Both packs operate norma Both outflow valves opera Airplane remains at or bel APU is used as air source system hydraulic demand takeoff and landing, and Appropriate performance are applied.	ked closed, ked closed, stem operates air switch on systems tem operates ally, te normally, ow FL 350, of for center pumps for		

U.S. DEPARTMENT OF TRANSPOR	RTATIO	MA OTED MINIMUM FOLUDIATIVE LIGH				
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION						
AIRCRAFT: BOEING B-777			REVISION NO: 20 PAGE:			
BOLING B-111			DATE: 04/14/2014 36-26			
SYSTEM & JTEM	2.	NUME	BER INSTALLED			
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH			
			4. REMARKS OR EXCEPTIONS			
36 PNUEMATIC		ļ				
-22-01 Manifold Temperature Sensing Systems (Cont'd)						
-22-01-02 -200/-200ER (With PRR 61980 or Equivalent Incorporated)						
-22-01-02A C	2	1	 (M)(O) One may be inoperative provided: a) Associated HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, d) Associated engine bleed air switch is cycled OFF, then ON at 55% N1 or greater before takeoff, and e) Appropriate performance adjustments are applied. 			
-22-01-02B C	2	1	 (M)(O) One may be inoperative provided: a) Associated HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and j) Appropriate performance adjustments are applied. (Continued) 			

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIS							
FEDER	AL AVIATION ADMINIST	ΓRΑΤΙ	ON			MASTER MINIMUM EQU	IPIVIENI LISI
AIRCRA	AFT: BOEING B-	777				REVISION NO: 20	PAGE:
	BOLINO B					DATE: 04/14/2014	36-27
SYSTE SEQUE NUMBE	NCE	1.	2.		NUMBI	STALLED ER REQUIRED FOR DISPATCI REMARKS OR EXCEPTIONS	-1
36 PNI	JEMATIC						
-22-01	Manifold Temperature Sensing Systems (Cont'd)						
-22-01-0	-300 (Without SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (Without PRR 61980 or Equivalent Incorporated)						
-22-01-0	D3A	C	2	1	a) b) c) d)	normally, Both outflow valves operate r Procedures are established a verify forward cargo compartr remains empty or contains or empty cargo handling equipm (ballast may be loaded in ULI away kits, Associated engine bleed air s cycled OFF, then ON at 55% greater before takeoff, and Appropriate performance adju are applied. Coperator MELs must define w are approved for inclusion in t away kits and which materials used as ballast.	closed, n operates formally, nd used to nent ly ballast, lent Ds), or fly witch is N1 or ustments hich items he fly

U.S. DEPARTMENT OF TRANSPOR	TATION	1	MASTER MINIMUM E	QUIPMENT LIST
FEDERAL AVIATION ADMINISTRATI	ION			
AIRCRAFT: BOEING B-777			REVISION NO: 20	PAGE:
BOLINO B 111			DATE: 04/14/2014	36-28
SYSTEM &	2. N	NUMBER	INSTALLED	
SEQUENCE ITEM		3. NUN	IBER REQUIRED FOR DISPA	тсн
NUMBERS		4.	REMARKS OR EXCEPTION	IS
36 PNUEMATIC				
-22-1 Manifold Temperature Sensing Systems (Cont'd)				
-22-01-03 -300 (Without SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (Without PRR 61980 or Equivalent Incorporated) (Cont'd)				
-22-01-03B C	2		 (O) One may be inoperative pranting allowing all	sed closed, sed closed, sed closed, setem operates air switch on systems tem operates ally, sed and used to artment sonly ballast, ipment ULDs), or fly for center pumps for adjustments

U.S. DEPARTMENT OF TRANSF			N	MASTER MINIMUM EQUIPMENT LIST				
FEDERAL AVIATION ADMINIST AIRCRAFT:	RAII	ON		REVISION NO: 20 PAGE:				
BOEING B-7	77			DATE: 04/14/2014 36-29				
	1.	2.	NUME	BER INSTALLED				
SYSTEM & ITEM SEQUENCE			3. NUMBER REQUIRED FOR DISPATCH					
NUMBERS				4. REMARKS OR EXCEPTIONS				
36 PNUEMATIC								
-22-01 Manifold Temperature Sensing Systems (Cont'd)								
-22-01-04 -300 (With SB 777-25-0227 and ASCPC SW P/N 3670-GRS-012-00 or later Installed) Or (With PRR 61980 or Equivalent Incorporated)								
-22-01-04A	С	2	1	 (M)(O) One may be inoperative provided: a) Associated HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, d) Associated engine bleed air switch is cycled OFF, then ON at 55% N1 or greater before takeoff, and e) Appropriate performance adjustments are applied. 				
-22-01-04B	C	2	1	 (M)(O) One may be inoperative provided: a) Associated HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and j) Appropriate performance adjustments are applied. 				

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST								
FEDERAL AVIATION ADMINISTRATION								
AIRCRAFT: BOEING B-777	7		REVISION NO: 20	PAGE:				
			DATE: 04/14/2014	36-30				
SYSTEM & ITEM	1. 2.	NUMBER INSTALLED						
SEQUENCE NUMBERS								
36 PNUEMATIC			I. REMARKS OR EXCEPTIONS					
-22-01 Manifold Temperature Sensing Systems (Cont'd) -22-01-05 -200LR/-300ER								
-22-01-05A C	2	1 (M	Associated HPSOV is locked Associated HPSOV is locked Opposite engine bleed syste normally, Both outflow valves operate Associated engine bleed air cycled OFF, then ON at 55% greater before takeoff, and Appropriate performance adjare applied.	d closed, m operates normally, switch is N1 or				
-22-01-05B C			a) Associated HPSOV is locked b) Associated PRSOV is locked c) Opposite engine bleed syste normally, d) Associated engine bleed air remains OFF, e) Left and right bleed isolation operate normally, f) Center bleed isolation syster normally, g) Both packs operate normally h) Both outflow valves operate i) APU is used as air source for system hydraulic demand put takeoff and landing, and j) Appropriate performance adjare applied.	d closed, d closed, m operates switch systems n operates n operates normally, r center imps for				

U.S. DEPARTMENT OF TRANS	PORT							
MASTER MINIMUM EQUIPMENT LIST FEDERAL AVIATION ADMINISTRATION								
AIRCRAFT: BOEING B-7	777			REVISION NO: 20 PAGE:				
	. 1			DATE: 04/14/2014 36-31				
SYSTEM & ITEM	1.	2.		BER INSTALLED				
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
36 PNUEMATIC								
-22-01 Manifold Temperature Sensing Systems (Cont'd)								
-22-01-06 777F								
-22-01-06A	С	2	1	 (M)(O) One may be inoperative provided: a) Associated HPSOV is locked closed, b) Opposite engine bleed system operates normally, c) Both outflow valves operate normally, d) Associated engine bleed air switch is cycled OFF, then ON at 55% N1 or greater before takeoff, and e) Appropriate performance adjustments are applied. 				
-22-01-06B	C	2	1	 (M)(O) One may be inoperative provided: a) Associated HPSOV is locked closed, b) Associated PRSOV is locked closed, c) Opposite engine bleed system operates normally, d) Associated engine bleed air switch remains OFF, e) Left and right bleed isolation systems operate normally, f) Center bleed isolation system operates normally, g) Both packs operate normally, h) Both outflow valves operate normally, i) Both recirculation fans operate normally, j) Both ECSMCs operate normally, k) APU is used as air source for center system hydraulic demand pumps for takeoff and landing, and l) Appropriate performance adjustments are applied. 				

FEDERAL AVIATION ADMII	NISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:				REVISION NO: 20 PAGE:
BOEING	3 B-777			DATE: 04/14/2014 38-1
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
38 WATER/WASTE				
-10-01 Potable Water Systems				
-10-01A	С	-	-	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks.
				NOTE: Any portion of system which operates normally may be used.
-10-01B	С	-	-	(M) May be inoperative provided: a) System is drained, and b) Procedures are established to ensure that system is not serviced.
-10-01-01				
Potable Water Indication System	D	-	-	
-30-01 Lavatory Waste Systems				
-30-01A	С	-	-	(M) Individual components may be inoperative provided: a) Associated components are deactivated or isolated, and b) Associated system components are verified not to have leaks.
				NOTE: Any portion of system which operates normally may be used.
				(Continued)

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U.S. DEPARTMENT OF TRANSPOR	TATION			
 FEDERAL AVIATION ADMINISTRATI	ΙΟΝ		MASTER MINIMUM EQU	IPMENT LIST
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AIRCRAFT: BOEING B-777			REVISION NO: 20	PAGE:
BOLING B-777			DATE: 04/14/2014	38-2
SYSTEM & 1.	2. NUM	IBER IN	STALLED	
SEQUENCE ITEM	3.	NUMBI	ER REQUIRED FOR DISPATCH	4
NUMBERS		4.	REMARKS OR EXCEPTIONS	
38 WATER/WASTE				
				i
-30-01 Lavatory Waste Systems (Cont'd)				
-30-01B C		inope a) b)	ssociated lavatory system may brative provided: Associated components are control in the contro	leactivated ind cked ITER.

U.S. DEPARTM	ENT OF TRANS	POR1		MASTER N	IINIMUM EQU	IPMENT LIST		
FEDERAL AVIA	TION ADMINIST	RATI	ON			-		
AIRCRAFT:	BOEING B-7	777				REVISION NO: DATE: 05/31/2	19 013	PAGE: 45-1
SYSTEM &		1.	2.	NUME	BER IN	STALLED		
SEQUENCE	ITEM			3.	NUMBI	ER REQUIRED F	OR DISPATCH	1
NUMBERS					4.	REMARKS OR E	XCEPTIONS	
45 CENTRAL M SYSTEM	IAINTENANCE							
	Maintenance ting System)	С	1	0				
	nance Access al (MAT)	D	1	0				
-13-01 Side Di	splays	D	-	0	(M) M	ay be inoperative	deactivated.	

U.S. DEPARTMENT OF TRANSIFEDERAL AVIATION ADMINIST			N	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:	KAII	ON	REVISION NO: 20a PAGE:	
BOEING B-7	77			
	1.	2.	NII INAE	DATE: 11/05/2014 46-1 BER INSTALLED
SYSTEM & ITEM SEQUENCE	1.	۷.		NUMBER REQUIRED FOR DISPATCH
NUMBERS			3.	4. REMARKS OR EXCEPTIONS
46 INFORMATION SYSTEMS				4. KEWAKKO OK EXCELLIONS
-11-01 Onboard Network *** System (ONS)				
-11-01A	С	1	0	(O) May be inoperative provided alternate procedures are established and used.
				NOTE: Any function which operates normally may be used.
-11-01B	D	1	0	May be inoperative provided procedures do not require its use.
-11-02 Electronic Flight Bag *** (EFB) System				
-11-02-01 *** Class 3 EFB (Boeing)				
-11-02-01A	С	2	1	NOTE: Any function, program or document which operates normally may be used.
-11-02-01B	С	2	0	(O) May be inoperative provided alternate procedures are established and used.
				NOTE: Any function, program or document which operates normally may be used.
-11-02-01C	D	2	0	May be inoperative provided procedures do not require its use.
				(Continued)

U.S. DEPARTMENT OF TRANS FEDERAL AVIATION ADMINIST			N	MASTER MINIMUM EQUIPMENT LIST				
AIRCRAFT: BOEING B-7	777			REVISION NO: 20a PAGE:				
		1		DATE: 11/05/2014 46-2				
SYSTEM & ITEM	1.	2.	NUMBER INSTALLED					
SEQUENCE NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
46 INFORMATION SYSTEMS								
-11-02 Electronic Flight Bag *** (EFB) System (Cont'd)								
-11-02-02 *** Class 2 EFB								
-11-02-02-01 Data Connectivity								
-11-02-02-01A	С	-	-	(O) May be inoperative provided alternate procedures are established and used.				
-11-02-02-01B	D	-	0	May be inoperative provided procedures do not require its use.				
-11-02-02-02 Power Connection								
-11-02-02-02A	С	-	-	(O) May be inoperative provided alternate procedures are established and used.				
-11-02-02-02B	D	-	0	May be inoperative provided procedures do not require its use.				
				(Continued)				

U.S. DEPARTMENT OF TRANSPO	ORTAT	TION	
FEDERAL AVIATION ADMINISTR			MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-77	7		REVISION NO: 20a PAGE:
BOLING B-77	, 		DATE: 11/05/2014 46-3
SYSTEM & ITEM	1. 2	. NUM	BER INSTALLED
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
46 INFORMATION SYSTEMS			4. REMARKS OR EXCEPTIONS
40 INFORMATION STSTEMS			
-11-02 Electronic Flight Bag *** (EFB) System (Cont'd)			
-11-02-02 *** Class 2 EFB (Cont'd)			
-11-02-02-03 Mounting Device			
-11-02-02-03A	C .	- -	 (M)(O) May be inoperative provided: a) Associated EFB and hardware is secured by an alternate means or removed, and b) Alternate procedures are established and used.
-11-02-02-03B	D .	- 0	 (M) May be inoperative provided: a) Associated EFB and hardware is secured by an alternate means or removed, and b) Procedures do not require its use.
-11-02-03 *** Class 1 EFB			
-11-02-03-01 Power Connection			
-11-02-03-01A	С .	. -	(O) May be inoperative provided alternate procedures are established and used.
-11-02-03-01B	D .	- 0	May be inoperative provided procedures do not require its use.

U.S. DEPARTMENT OF TRANS	SPOR	TATIO	MASTER MINIMUM EQUIPMENT LIST	
FEDERAL AVIATION ADMINIST	TRAT	ION	MASTER WINNINGWIE QUIT MENT EIGT	
AIRCRAFT: BOEING B-	777			REVISION NO: 20a PAGE:
BOEING B-	111			DATE: 11/05/2014 46-4
SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
46 INFORMATION SYSTEMS				
-11-03 Terminal Wireless *** LAN Unit (TWLU)				
-11-03A	С	1	0	May be inoperative provided an alternate means to update associated equipment software is used.
-11-03B	D	1	0	May be inoperative provided procedures do not require its use.

U.S. DEPARTMENT OF TRANSPORT	TATIO	N	
FEDERAL AVIATION ADMINISTRAT		MASTER MINIMUM EQUIPMENT LIST	
AIRCRAFT: BOEING B-777			REVISION NO: 18b PAGE: DATE: 06/13/2012 47-1
SYSTEM &	2.	NUME	BER INSTALLED
SEQUENCE ITEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
47 INERT GAS SYSTEM			
-11-01 Nitrogen Generation A *** System (NGS)	1	0	(M) May be inoperative provided: a) NGS shutoff valve is deactivated closed, and b) Repairs are made within ten flight days.
-11-01-01 Nitrogen Generation C Performance	1	0	

U.S. DEPARTMENT OF TRAIFEDERAL AVIATION ADMIN			N	MASTER MINIMUM EQUIPMENT LIST				
AIRCRAFT: BOEING		-	REVISION NO: 18b PAGE:					
				DATE: 06/13/2012 49-1				
SYSTEM &	1.	2.	NUME	BER INSTALLED				
SEQUENCE ITEM NUMBERS			3.	NUMBER REQUIRED FOR DISPATCH				
NOMBERS				4. REMARKS OR EXCEPTIONS				
49 AIRBORNE AUXILIARY POWER			 					
-11-01 Auxiliary Power Unit (APU)	С	1	0	 (O) APU may be inoperative provided: a) Other procedures do not require its use, and b) Flight remains within 180 minutes of landing at a suitable airport. 				
-15-01 APU Air Inlet Door Actuation System								
-15-01A	С	1	0	 (O) May be inoperative with door in any position provided: a) Other procedures do not require the use of the APU, b) APU is not used, and c) Flight remains within 180 minutes of landing at a suitable airport. 				
-15-01B	С	1	0	(M)(O) May be inoperative provided door is deactivated in the full open position.				
-15-01-01								
APU Air Inlet Door Actuator Position Indication Switch	С	1	0	 (M) May be inoperative provided: a) APU inlet door is verified to operate normally before each departure, and b) Both ELMS P310 panel channels operate normally. 				
-42-01 APU Starting System (Includes Electric Starter)	l							
-42-01A	С	1	0	(O) May be dispatched with APU START SYS faults provided APU is started before departure and operated continuously throughout the flight.				
-42-01B	С	1	0	 (O) May be dispatched with APU START SYS faults provided: a) Other procedures do not require use of the APU, and b) Flight remains within 180 minutes of landing at a suitable airport. 				

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST									
FEDERAL AVIATION ADMINISTRATION									
AIRCR	AFT: BOEING B-	777			REVISION NO: 18b PAGE:				
			ı		DATE: 06/13/2012 49-2				
SYSTE	M&	1.	2.	NUME	BER INSTALLED				
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH				
INOIVIDE					4. REMARKS OR EXCEPTIONS				
	BORNE AUXILIARY WER								
-43-01	APU Air Turbine Starter	С	1	0	May be inoperative provided electric starter operates normally.				
-52-01	APU Bleed Air System	С	1	0	(O) May be inoperative provided: a) Other procedures do not require use of the APU as a pneumatic source, and b) Flight remains within 180 minutes of landing at a suitable airport. NOTE: The APU may be used as an electrical				
-52-02	APU Bleed Air Check Valve	С	1	0	power source. (O) May be inoperative provided: a) APU bleed air switch remains OFF				
					except for main engine start, b) Other procedures do not require use of the APU as a pneumatic source, and c) Flight remains within 180 minutes of landing at a suitable airport.				
					NOTE: The APU may be used for electrical power. Air Turbine Starter is not available with APU bleed air shutoff valve closed.				
-61-01	APU Controller	С	1	0	May be dispatched with APU CONTROL faults.				
-61-02	APU Ground Control Panel	С	1	0					
-70-01	APU FAULT Light	С	1	0					
-71-01	APU EGT Indication	С	1	0					
-73-01	APU RPM Indication	С	1	0					

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FEDERAL AVIATION	ON ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT:	BOEING B-777			REVISION NO: 18b PAGE:
		T		DATE: 06/13/2012 49-3
SYSTEM &	1. ITEM	2.	NUME	BER INSTALLED
SEQUENCE NUMBERS	I I LIVI		3.	NUMBER REQUIRED FOR DISPATCH
		_		4. REMARKS OR EXCEPTIONS
49 AIRBORNE AU POWER 	JXILIARY			
-94-01 APU OIL (Indication				
-94-01A	С	1	0	(M) May be inoperative provided APU oil quantity is verified adequate once each flight day.
-94-01B	С	1	0	 (O) May be inoperative provided: a) Other procedures do not require use of APU, and b) Flight remains within 180 minutes of landing at a suitable airport.
-94-02 APU OIL Indication		1	0	

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FEDERAL AVIATION ADMINIST			'IN	MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-				REVISION NO: 20a PAGE:
BOLING B-		T		DATE: 11/05/2014 52-1
SYSTEM & ITEM SEQUENCE NUMBERS	1.	2.		BER INSTALLED NUMBER REQUIRED FOR DISPATCH
52 DOORS				4. REMARKS OR EXCEPTIONS
-00-01 Door Synoptic Display	С	 1	0	
-11-01 Main Entry Doors/Slides				
-11-01-01 Passenger				
-11-01-01A	A			 (M)(O) One door/slide may be inoperative or slide missing provided: a) All other main entry doors are fully operational, b) Affected door is not used for passenger loading, c) A conspicuous barrier strap or rope and a placard stating that the door is inoperative shall be placed across the inoperative door, d) Emergency exit sign and floor proximity lights associated with the inoperative exit must be covered to obscure the sign and lights, e) Passengers must be briefed not to use affected door, (Continued)

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FEDERAL AVIATION ADMINISTRATI	ON		MASTER MINIMUM E	EQUIPMENT LIST
AIRCRAFT:			REVISION NO: 20a	PAGE:
BOEING B-777			DATE: 11/05/2014	52-2
SYSTEM & ITEM	2. NU	MBER IN	STALLED	
SEQUENCE ITEM	3	B. NUMB	ER REQUIRED FOR DISPA	TCH
NUMBERS		4.	REMARKS OR EXCEPTION	NS
52 DOORS				
-11-01 Main Entry Doors/Slides (Cont'd) -11-01-01				
Passenger (Cont'd)				
-11-01-01A (Cont'd)		h i)	exit in each direction from inoperative door, across to five airplane, shall be be conspicuous tapes or rop contrast with the airplane loading passengers. Only these areas shall be block passenger aisles, cross a areas must not be blocked inoperative forward door/s blocked seating area shall the forward cabin end, rea halfway between the inoperative one. For an in door/slide, the blocked seatill extend forward from end to a line halfway between the inoperative door and the indoors forward of the inoperative door and the indoors forward of the inoperative door and the indoors forward of the inoperative door and the indoors forward of the inoperative seats are not to be passengers, Seated capacity must not capacity of remaining pair	he the he entire width locked off with es that interior before the seats in ked; main isles and exit d. (For an side, the ll extend from arward to a line erative forward loors aft of the loperative rear eating area the aft cabin ween the hext set of erative one), lacards shall ocations to be occupied by exceed rated rs of exits, perations, ed the normal extrafts, or the he rated clide/rafts e additional

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FEDERAL AVIATION ADMINISTRAT	ION		MASTER MINIMUM EQUIPMENT LIST
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE: DATE: 11/05/2014 52-4
SYSTEM & ITEM	2.		BER INSTALLED
SEQUENCE NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS
52 DOORS			
-11-01 Main Entry Doors/Slides (Cont'd)			
-11-01-01 Passenger (Cont'd)			
-11-01-01B C	-	1	 (M)(O) May be inoperative or slides missing provided: a) No passengers are carried, b) A maximum of 19 persons authorized by 14 CFR for non-passenger carrying operations are carried, c) Affected door is not used for passenger loading, d) A conspicuous barrier strap or rope and a placard stating that the door is inoperative shall be placed across the inoperative door, e) Emergency exit sign and floor proximity lights associated with the inoperative exit must be covered to obscure the sign and lights, f) Each person carried has unobstructed access from their seat to an operative door, g) Safety briefing includes location of inoperative doors and instructions not to use them, and h) Alternate procedures are established and used.
-11-01-02 777F C	2	1	One door/slide may be inoperative or slide missing.

U.S. DEPARTMENT OF TRANSPO FEDERAL AVIATION ADMINISTRA		/IN	MASTER MINIMUM EQUIPMENT LIST
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			DATE: 11/05/2014 52-5
SYSTEM & ITEM	2.		BER INSTALLED
SEQUENCE TILWI NUMBERS		3.	NUMBER REQUIRED FOR DISPATCH
52 DOORS			4. REMARKS OR EXCEPTIONS
52 DOORS			
-11-02 Main Entry Doors C Pressure Stop Assemblies	-	-	 (M)(O) One forward or aft stop per door (total of 8 stops per –200 airplane, or 10 stops per –300 airplane, or 2 stops per 777F) may be missing or inoperative provided: a) There are no visible defects on remaining stops for the affected door(s), b) Both cabin altitude auto controllers operate normally, c) For inoperative or missing pressure stops 1, 2, 7 and 8, limit maximum cabin differential pressure to 2.5 psi, and d) For inoperative or missing pressure stops 3, 4, 5 and 6, limit maximum cabin differential pressure to 5.4 psi.
-11-03 Main Entry Doors Hold-Open Mechanisms			
-11-03-01			
-200/-200ER/-200LR C	8	4	
-11-03-02 -300/-300ER C	10	6	May be inoperative provided doors 3L and 3R hold-open mechanisms operate normally.
-11-03-03 777F C	2	1	

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FEDERAL AVIATION ADMINISTRAT	ION		
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			DATE: 11/05/2014 52-6
SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
52 DOORS			
	ļ	 	
-11-04 Main Entry Doors Hold-Open Release Handles			
-11-04-01			
-200/-200ER/-200LR C	8	4	
-11-04-02 -300/-300ER			
-11-04-02-01			
Doors 1L, 1R, 2L, 2R, C 4L, 4R, 5L and 5R	8	4	
-11-04-02-02			
Doors 3L and 3R C	2	1	One may be inoperative provided supplemental raft is not installed in the associated door bustle.
-11-04-03			
777F C	2	1	

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FEDERAL AVIA	ATION ADMINISTF	RATIC	NC		MASTER MINIMUM EQUIPMENT LIST
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	BOEING B-77	//			DATE: 11/05/2014 52-7
SYSTEM &		1.	2.	NUME	BER INSTALLED
SEQUENCE	ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS					4. REMARKS OR EXCEPTIONS
52 DOORS					
	Entry Door Lock Systems				
-11-05-01					
Passe	nger	С		0	 (M)(O) May be inoperative provided: a) Each affected door is verified to be capable of being unlatched and opened before each departure, and b) A person employed by the operator is designated to monitor the affected door handle(s) when cabin differential pressure is less than 1.5 psi.
-11-05-02					
777F		С	2	0	(M) May be inoperative provided each affected door is verified to be capable of being unlatched and opened before each departure.
-32-01 Main D Door (Deck Cargo 777F)				
-32-01-01					
Systen Electri	n (Manual and	С	1	0	 (M) May be inoperative provided: a) An alternate procedure is used to close the door, and b) Door is verified closed, latched and locked before each departure.
-32-01-02 Cargo Hook/L (Electr	_atch System	С	1	0	 (M) May be inoperative provided: a) Manual function operates normally, b) There is no damage to hook/latch mechanism, c) There is no damage to lock mechanism, d) An alternate procedure is used to latch the door, and e) Door is verified closed, latched and locked before each departure. (Continued)

	EPARTMENT OF TRANS AL AVIATION ADMINIS			N	MASTER MINIMUM EQUIPMENT LIST
AIRCR		IKAII	ION		REVISION NO: 20a PAGE:
AllCIN	777				
			I		DATE: 11/05/2014 52-8
SYSTE		1.	2.		BER INSTALLED
SEQUE NUMBE	:NCE			3.	NUMBER REQUIRED FOR DISPATCH
					4. REMARKS OR EXCEPTIONS
52 DO	ORS				
-32-01	Main Deck Cargo Door (777F) (Cont'd)				
-32-01-	03				
	Cargo Door Lock System (Electric)	С	1	0	 (M) May be inoperative provided: a) Manual function operates normally, b) There is no damage to hook/latch mechanism, c) There is no damage to lock mechanism, d) An alternate procedure is used to lock the door, and e) Door is verified closed, latched and locked before each departure.
-32-02	Main Deck Cargo Door Control Panel Lights (OPENED, CLOSED, LATCHED, UNLOCKED, LOCKED & ARMED) (777F)	С	12	0	(M) May be inoperative provided the main deck cargo door is verified to be closed, latched and locked before each departure.
-34-01	Forward Cargo Door Hook/Latch System (Electric Mode)	С	1	0	 (M) May be inoperative provided: a) Manual mode operates normally, b) There is no damage to the hook/latch mechanism, and c) Door is manually latched and locked using the maintenance manual procedure.
-34-02	Forward Cargo Door Lift System (Electric Mode)	С	1	0	 (M) May be inoperative provided: a) Manual mode operates normally, b) There is no damage to the door lift system, and c) Door is manually closed, latched and locked using the maintenance manual procedure.

	EPARTMENT OF TRANS AL AVIATION ADMINIS			'IN	MASTER MINIMUM EQUIPMENT LIST
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	BOEING B-	777			DATE: 11/05/2014 52-9
SVSTE	M &	1.	2.	NUME	BER INSTALLED
SYSTEM & ITEM SEQUENCE NUMBERS				3.	NUMBER REQUIRED FOR DISPATCH
NUMBE	ERS				4. REMARKS OR EXCEPTIONS
52 DO	ORS				
-34-03	Forward Cargo DOOR LATCHED Light	С	1	0	(M) May be inoperative provided the forward cargo door is verified to be closed, latched and locked before each departure.
-35-01 ***	Aft Small Cargo Door Lift/Latch System	С	1	0	(M) May be inoperative provided the associated door is verified to be closed, latched and locked before each departure.
-35-01-					
	Electric Mode	С	1	0	May be inoperative provided manual mode operates normally.
-35-02 ***	Aft Small Cargo Door Hinge System (Electric Mode)	С	1	0	 (M) May be inoperative provided: a) Manual mode operates normally, b) There is no damage to the hinge system, and c) Door is manually operated using the maintenance manual procedure.
-35-03 ***	Aft Small Cargo DOOR LATCHED Light	С	1	0	 (M) May be inoperative provided: a) Aft small cargo door indication system operates normally, and b) Aft small cargo door is verified to be closed, latched and locked before each departure.
-35-04 ***	Aft Small Cargo Door Arming Relay/Control Switch	С	1	0	 (M) May be inoperative provided: a) Associated arming control circuit is deactivated, and b) Aft small cargo door is verified to be closed, latched and locked before each departure.
-36-01	Bulk Cargo Door Counterbalance Mechanism	С	1	0	(M) May be inoperative provided a safety hold open device is used when door is in the open position.

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			T		DATE: 11/05/2014 52-10
SYSTE	M & ITEM	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE	INCE			3.	NUMBER REQUIRED FOR DISPATCH
INOIVIDE					4. REMARKS OR EXCEPTIONS
52 DO	ORS		ļ		
-37-01 ***	Aft Large Cargo Door Hook/Latch System (Electric Mode)	С	1	0	 (M) May be inoperative provided: a) Manual mode operates normally, b) There is no damage to the hook/latch mechanism, and c) Door is manually latched and locked using the maintenance manual procedure.
-37-02 ***	Aft Large Cargo Door Lift System (Electric Mode)	С	1	0	 (M) May be inoperative provided: a) Manual mode operates normally, b) There is no damage to the door lift system, and c) Door is manually closed, latched and locked using the maintenance manual procedure.
-37-03 ***	Aft Large Cargo DOOR LATCHED Light	С	1	0	(M) May be inoperative provided the aft large cargo door is verified to be closed, latched and locked before each departure.
-51-01 ***	Flight Deck Door Lock Automatic System (Not 14 CFR 25.795 Compliant)				
-51-01 <i>A</i>	A	С	1	0	 (M) May be inoperative provided: a) Door automatic locking electric solenoid is deactivated in the extended position, and b) Door is verified to lock and unlock manually.
-51-01E	3	С	1	0	May be inoperative provided supplemental flight deck door security device is installed and operates normally.

FEDERAL AVIATION ADMINISTRATION AIRCRAFT: BOEING B-777 1. 2. NUMBER INSTALLED SYSTEM & SEQUENCE NUMBERS 52 DOORS 51-02 Boeing Enhanced A Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Locking System (15 CFR 25.795 Locking	PAGE: 52-11
SYSTEM & SEQUENCE NUMBERS 1. 2. NUMBER INSTALLED 3. NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS 51-02 Boeing Enhanced A Flight Deck Security Door Automatic Locking System (14 CFR 25.795 A NUMBER INSTALLED 4. REMARKS OR EXCEPTIONS A DATE: 11/05/2014	52-11
SYSTEM & SEQUENCE NUMBERS 1. 2. NUMBER INSTALLED 3. NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS 51-02 Boeing Enhanced Flight Deck Security Door Automatic Locking System (14 CFR 25.795) 1. 2. NUMBER INSTALLED 4. REMARKS OR EXCEPTIONS 4. REMARKS OR EXCEPTIONS 5. DOOR DISPATCH 4. REMARKS OR EXCEPTIONS 5. DOOR DISPATCH 4. REMARKS OR EXCEPTIONS 5. DOOR DISPATCH 4. DOOR DISPATCH 5. DOOR DISPATCH 4. DOOR DISPATCH 5. DOOR DISPATCH 4. DOOR DISPATCH 5. DOOR DISPATCH 5. DOOR DISPATCH 6. DOOR DISPATCH 6. DOOR DISPATCH 6. DOOR DISPATCH 7. DOOR DISPATCH 8. DOOR DISPATCH 9. DOOR DISPATCH 9. DOOR DISPATCH 9. DOOR DISPATCH 1. DOOR	
SYSTEM & SEQUENCE NUMBERS 3. NUMBER REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS 51-02 Boeing Enhanced A Flight Deck Security Door Automatic Locking System (14 CFR 25.795) A NUMBER REQUIRED FOR DISPATCH (M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Door dead bolt operates norm used to lock the door,	:H
SEQUENCE NUMBERS 4. REMARKS OR EXCEPTIONS 52 DOORS 51-02 Boeing Enhanced A Flight Deck Security Door Automatic Locking System (14 CFR 25.795) 3. NUMBER REQUIRED FOR DISPATCH (M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Door dead bolt operates norm used to lock the door,	:H
52 DOORS 4. REMARKS OR EXCEPTIONS 51-02 Boeing Enhanced A Flight Deck Security Door Automatic Locking System (14 CFR 25.795 4. REMARKS OR EXCEPTIONS (M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Door dead bolt operates norm used to lock the door,	
51-02 Boeing Enhanced A 1 0 (M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Door dead bolt operates norm used to lock the door,	
Flight Deck Security Door Automatic Locking System (14 CFR 25.795 a) Automatic locking system is deactivated, b) Door dead bolt operates norm used to lock the door,	
Compliant) (Passenger) c) Alternate procedures are estated and used for locking and unloaded door using the dead bolt, and d) Repairs are made within two	ablished ocking the
-51-02-01	
Flight Deck Access B 1 0 (M)(O) May be inoperative provided: System (Keypad, Door Chime) 1 0 (M)(O) May be inoperative provided: a) Keypad is deactivated, and b) Alternate procedures are estated and used.	ablished
-51-02-01-01	
LEDs C 3 0 (O) May be inoperative provided alter procedures are established and used	
-51-02-01-02	
Door Bell Mode C 1 0 (O) May be inoperative provided alter procedures are established and used	
-51-02-01-03	
Switch Guard C 1 0 May be inoperative or missing provide deck door LOCK FAIL light operates in	
-51-02-02	
Flight Deck Door B 1 0 (M) May be inoperative provided auto controls are verified to operate normal	
-51-02-03	
Flight Deck Door B 1 0 (M) May be inoperative provided: a) Automatic lock controls are violet operate normally, and b) Door chime operates normall	
(Continued)	

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	///			DATE: 11/05/2014 52-12						
SYSTE	M &	1.	2.	NUME	NUMBER INSTALLED					
SEQUE	ENCE			3.	NUMBER REQUIRED FOR DISPATCH					
NUMBE	=K5				4. REMARKS OR EXCEPTIONS					
52 DO	ORS									
51-02	Boeing Enhanced Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Compliant) (Passenger) (Cont'd)									
-51-02-	04									
	Flight Deck Door Lock Control Selector	В	1	0	 (M)(O) May be inoperative provided: a) Keypad is deactivated, b) Automatic lock is verified to operate normally, and c) Alternate procedures are established and used. 					
-51-02-	05									
	Pressure Rate-of-Change Sensing Module	Α	1	0	(M) May be inoperative provided: a) Pressure sensing module is deactivated, and b) Repairs are made within two flight days.					
-51-03	Boeing Enhanced Flight Deck Security Door Dead Bolt (14 CFR 25.795 Compliant) (Passenger)	С	1	0	May be inoperative provided automatic lock controls operate normally.					
-51-04 ***	JAMCO Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Compliant)	С	1	0	 (M)(O) May be inoperative provided: a) Automatic locking system is deactivated, b) Mechanical catch (latch) pin lock operates normally and is used to lock the door, and c) Alternate procedures are established and used for locking and unlocking the flight deck door using the mechanical catch (latch) pin lock. (Continued) 	1				

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IRCRAFT: BOEING E	3-777			REVISION NO: 20a PAGE:
				DATE: 11/05/2014 52-13
YSTEM & ITEM	1.	2.		BER INSTALLED
EQUENCE "TEIN" UMBERS			3.	NUMBER REQUIRED FOR DISPATCH
		_		4. REMARKS OR EXCEPTIONS
2 DOORS				
51-04 JAMCO Flight Deck * Security Door Automatic Locking System (14 CFR 25.795 Compliant) (Cont'd)				
51-04-01				
Door Automatic Locking Solenoids	С	2	1	One may be inoperative provided the remaining locking solenoid operates normally.
51-04-02 Door Warning System	1			
51-04-02-01				
* Speakers	С	2	1	(M)(O) One may be inoperative provided remaining speaker is verified to operate normally once each flight day.
51-04-02-02				
 * LED (Green Indicator Lights) 	С	2	0	
51-04-02-03				
Aural Warning System	С	1	0	 (M)(O) May be inoperative provided: a) Door AUTO UNLK light is verified to operate normally, and b) Alternate procedures are established and used.
				(Continued)

U.S. DEPARTMENT OF TRANSPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTRAT	ION		
AIRCRAFT: BOEING B-777			REVISION NO: 20a PAGE:
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SYSTEM & ITEM	2.	NUME	BER INSTALLED
SEQUENCE TEM		3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS			4. REMARKS OR EXCEPTIONS
52 DOORS			
-51-04 JAMCO Flight Deck *** Security Door Automatic Locking System (14 CFR 25.795 Compliant) (Cont'd)			
-51-04-03 Door Control Panel			
-51-04-03-01			
*** Door LOCK FAIL C Light	1	0	(M) May be inoperative OFF provided automatic lock controls are verified to operate normally.
-51-04-03-02			
*** Door AUTO UNLK C Light	1	0	 (M)(O) May be inoperative OFF provided: a) Automatic lock controls are verified to operate normally, b) Aural warning system operates normally, and c) Alternate procedures are established and used.
-51-04-03-03			
*** Door HARD LOCK C Light	1	0	 (M)(O) May be inoperative provided: a) Automatic lock controls are verified to operate normally, and b) Alternate procedures are established and used.
-51-04-03-04			
*** Door UNLKD C Switch/UNLK Switch Position	1	0	 (M)(O) May be inoperative provided: a) Door can be opened manually from the flight deck, b) Remaining automatic lock controls are verified to operate normally, and c) Alternate procedures are established and used.
			(Continued)

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7 (11 () 1	BOEING B-7	777								
			ı		DATE: 11/05/2014 52-15					
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SEQU				3.	NUMBER REQUIRED FOR DISPATCH					
NUMB	ERS				4. REMARKS OR EXCEPTIONS					
52 DC	OORS									
-51-04 ***	JAMCO Flight Deck Security Door Automatic Locking System (14 CFR 25.795 Compliant) (Cont'd)				I					
-51-04	-03 Door Control Panel (Cont'd)									
-51-04	-03-05									
***	Door UNLKD Light	С	1	0	 (M)(O) May be inoperative provided: a) Automatic lock controls are verified to operate normally, and b) Aural warning system operates normally. 					
-51-04	-03-06									
***	Door EMRG ENTRY ACTIVE Light	С	1	0	(M) May be inoperative provided the door aural warning system is verified to operate normally.					
-51-04	-03-07									
***	Door OPEN Light	С	1	0	(M)(O) May be inoperative provided automatic lock controls are verified to operate normally.					
-51-04	-04									
***	FLIGHT DECK DOOR Warning/Caution Light	С	1	0						
-51-04	-05									
	Cabin Pushbutton Entry Pad/Keypad	С	1	0	(O) May be inoperative provided alternate procedures are established and used.					
-51-04	-05-01									
***	Keypad Indicator Lights	С	3	0	 (M)(O) May be inoperative provided: a) Keypad is verified to operate normally, and b) Alternate procedures are established and used. 					

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	BOEING B-	777			DATE: 11/05/2014 52-16					
SYSTEM & 1.			2.	2. NUMBER INSTALLED						
SYSTEM & ITEM SEQUENCE				3. NUMBER REQUIRED FOR DISPATCH						
NUMBE	ERS				4. REMARKS OR EXCEPTIONS					
52 DO	ORS									
-51-05 ***	JAMCO Flight Deck Security Door Mechanical Catch (Latch) Pin Lock (14 CFR 25.795 Compliant)	С	1	0	(M) May be inoperative provided automatic locking system operates normally.					
-51-06	Flight Deck Door Viewing Port (Passenger)									
-51-06-	01									
	Without Electronic Visual Surveillance System	A	1	0	 (O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within three flight days. 					
-51-06-	02									
	With Electronic Visual Surveillance System									
-51-06-	02A	Α	1	0	 (O) May be inoperative provided: a) Alternate procedures are established and used, and b) Repairs are made within three flight days. 					
-51-06-	02B	С	1	0	 (O) May be inoperative provided: a) A flight deck door visual surveillance system is installed and operates normally, and b) Alternate procedures are established and used. 					

U.S. DE	U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST										
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AIRCRA	AFT: BOEING B-	777			REVISION NO: 20a PAGE:						
	BOEINO B				DATE: 11/05/2014 52-17						
SYSTE	M &	1.	2.	NUME	BER INSTALLED						
SEQUE	NCE			3.	NUMBER REQUIRED FOR DISPATCH						
NUMBE	יאט				4. REMARKS OR EXCEPTIONS						
52 DO	ORS										
-71-01	Door Indication Systems	С	-	0	(M) May be inoperative provided associated door is verified closed, latched and locked before each departure.						
-71-02 ***	Main Entry Door Status Annunciation and Alerting Systems (Flight Attendant)										
-71-02A C				0	(O) May be inoperative provided alternate procedures are established and used.						
-71-02B	3	D	-	0	May be inoperative provided procedures do not require their use.						

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST											
FEDERAL AV	IATION ADMINIS	STRATI	ON		WASTER WINNIWOW EQUIPMENT LIST						
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						DATE: 06/13/20	12	56-1			
SYSTEM &		1.	2.	NUMBI	ER INS	STALLED					
SEQUENCE	ITEM			3. N	3. NUMBER REQUIRED FOR DISPATCH						
NUMBERS					4.	REMARKS OR EX					
56 WINDOWS	S										
Indica	t Deck Window ation Systems - No. 2)	С	2	0							

U.S. DE	EPARTMENT OF TRANS	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST				
FEDER	AL AVIATION ADMINIS	TRATI	ON		MASTER MINIMONI EQUIPMENT LIST				
AIRCR	AFT: BOEING B-	777		REVISION NO: 20 PAGE					
	BOEING B-	111			DATE: 04/14/2014 73-1				
SYSTE	M &	1.	2.	NUME	BER INSTALLED				
SEQUE	NCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH				
NUMBE					4. REMARKS OR EXCEPTIONS				
73 EN	GINE FUEL AND CONTF	ROL							
-21-01	Engine Idle Selection Systems	С	2	0	(O) May be inoperative provided appropriate performance adjustments are applied.				
-21-02	Electronic Engine Controls (EEC) Normal Mode								
-21-02-									
	PW	С	2	0	 (O) Normal (NORM) mode may be inoperative provided: a) Autothrottle system operates normally, b) Both engines are operated in the alternate (ALTN) mode, and c) Appropriate performance adjustments are applied. 				
-21-02-	02 GE								
-21-02-	02-01								
	All (Except GE90-100 Series)	В	2	0	 (O) Normal (NORM) mode may be inoperative provided: a) Autothrottle system operates normally, b) LPT Turbine Case Cooling Air Flow Systems on both engines operate normally, c) Both engine are operated in the alternate (ALTN) mode, and d) Engine anti-ice valve may not be inoperative open. 				
					(Continued)				

U.S. DEPARTMENT OF TRANSPORT FEDERAL AVIATION ADMINISTRA		Ν	MASTER MINIMUM EQUIPMENT LIST				
AIRCRAFT:			REVISION NO: 20 PAGE:				
BOEING B-777			DATE: 04/14/2014 73-2				
SYSTEM &	2.	NUME	BER INSTALLED				
SEQUENCE ITEM NUMBERS		3. NUMBER REQUIRED FOR DISPATCH					
73 ENGINE FUEL AND CONTROL			4. REMARKS OR EXCEPTIONS				
73 ENGINE FOLL AND CONTROL							
-21-02 Electronic Engine Controls (EEC) Normal Mode (Cont'd)							
-21-02-02 GE (Cont'd)							
-21-02-02 GE90-100 Series B	2	0	(O) Normal (NORM) mode may be inoperative provided: a) Autothrottle system operates normally, b) LPT Turbine Case Cooling Air Flow Systems on both engines operate normally, c) Both engine are operated in the alternate (ALTN) mode, and d) Appropriate performance adjustments are applied.				
-21-02-03 RR C	2	0	 (O) Normal (NORM) mode may be inoperative provided: a) Autothrottle system operates normally, b) N2 indication on affected engine operates normally, c) Both engines are operated in the alternate (ALTN) mode, and d) Appropriate performance adjustments are applied. 				

AL AVIATION ADMINIST AFT:	TRATI			MASTER MINIMUM EQUIPMENT LIST
\ C T .		ION		
BOEING B-7	777			REVISION NO: 20 PAGE:
		1		DATE: 04/14/2014 73-3
VI &	1.	2.	NUME	BER INSTALLED
NCE			3.	NUMBER REQUIRED FOR DISPATCH
				4. REMARKS OR EXCEPTIONS
GINE FUEL AND CONTR	ROL			
Electronic Engine Controls (EEC) NORM/ALTN Mode Lights	С	2	0	(M) May be inoperative provided associated switches are verified to operate normally.
EEC C1 Faults	Α	2	0	May be dispatched with C1 faults provided repairs are made in accordance with times established by engine manufacturer.
Turbine Overspeed Systems (RR)	С	2	1	
Engine Fuel Shutoff Valve Indication Systems	С	2	1	(M) One may be inoperative provided the associated valve is verified to operate normally each flight day.
Engine Thrust Control Malfunction Accommodation (TCMA) Functions (GE90-100 Series)	С	2	1	
Fuel Flow Indications	C	2	1	One may be inoperative provided: a) Flight deck fuel tank quantity indicating systems operate normally, and b) Flight remains within 180 minutes of landing at a suitable airport.
	RS SINE FUEL AND CONTE Electronic Engine Controls (EEC) NORM/ALTN Mode Lights EEC C1 Faults Turbine Overspeed Systems (RR) Engine Fuel Shutoff Valve Indication Systems Engine Thrust Control Malfunction Accommodation (TCMA) Functions (GE90-100 Series)	RS SINE FUEL AND CONTROL Electronic Engine C Controls (EEC) NORM/ALTN Mode Lights EEC C1 Faults A Turbine Overspeed C Systems (RR) Engine Fuel Shutoff C Valve Indication Systems Engine Thrust Control C Malfunction Accommodation (TCMA) Functions (GE90-100 Series)	RS SINE FUEL AND CONTROL Electronic Engine C 2 Controls (EEC) NORM/ALTN Mode Lights EEC C1 Faults A 2 Turbine Overspeed C 2 Systems (RR) Engine Fuel Shutoff C 2 Valve Indication Systems Engine Thrust Control C 2 Malfunction Accommodation (TCMA) Functions (GE90-100 Series)	RS SINE FUEL AND CONTROL Electronic Engine C 2 0 Controls (EEC) NORM/ALTN Mode Lights EEC C1 Faults A 2 0 Turbine Overspeed C 2 1 Systems (RR) Engine Fuel Shutoff C 2 1 Valve Indication Systems Engine Thrust Control C 2 1 Malfunction Accommodation (TCMA) Functions (GE90-100 Series)

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FEDERAL AVIATION	ON ADMINISTRAT	ION			WASTERIV	IINIMUM EQUI	PIVICINI LIST
AIRCRAFT:	205010 5				REVISION NO:	20	PAGE:
	BOEING B-777				DATE: 04/14/20	014	73-4
SYSTEM &	1.	2.	NUME	BER INS	TALLED		
SEQUENCE	ITEM		3.	NUMBE	R REQUIRED F	OR DISPATCH	1
NUMBERS				4. R	EMARKS OR EX	XCEPTIONS	
73 ENGINE FUEL	AND CONTROL						
			}				
-34-01 Engine Fu Bypass W Systems							
-34-01-01							
PW & RR	С	2	1	a)	e may be inoper. It is verified tha alerting system Fuel is drained checked for cor departure.	t the malfunction , and from filter plug	on is in the and
-34-01-02 GE	С	2	1	drained	e may be inoper I from filter plug a inants before ea	and checked fo	

U.S. DEPARTME	U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST											
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AIRCRAFT:	BOEING B-	777				REVISION NO: 18b	ı	PAGE:				
	DOLING B					DATE: 06/13/2012	-	74-1				
SYSTEM &	17514	1.	2.	NUME	BER IN	STALLED						
SEQUENCE	SEQUENCE ITEM				NUMB	ER REQUIRED FOR DISPATCH						
NUMBERS					4.	REMARKS OR EXCEPTI	ONS					
74 IGNITION												
-00-01 Ignition S	ystems											
-00-01A	В	4	3	One may be inoperative provided associated engine anti-ice system operates normally.								
-00-01B	В	4	3	engin	nay be inoperative provide e anti-ice system is inope ivated open.							

U.S. DEPARTMENT OF TRANS FEDERAL AVIATION ADMINIST			N	MASTER MINIMUM EQUIPMENT LIST			
AIRCRAFT:	11/411			REVISION NO: 19 PAGE:			
BOEING B-	777			DATE: 05/31/2013 75-1			
	1.	2.	NII IN 1E	BER INSTALLED			
SYSTEM & ITEM SEQUENCE	1.	۷.	_	NUMBER REQUIRED FOR DISPATCH			
NUMBERS			J.	4. REMARKS OR EXCEPTIONS			
75 BLEED AIR				4. KEMAKKS OK EXCEPTIONS			
-23-01 Nacelle Zone Ventilation Valves (PW)	С	2	0	(M) May be inoperative locked open.			
-23-02 Core Compartment *** Cooling Valves (GE)	С	2	0	(M) May be inoperative locked open.			
-24-01 Turbine Case Cooling Air Flow Systems (PW & GE)							
-24-01-01 PW							
-24-01-01-01							
HPT Systems	С	2	0	(M)(O) May be inoperative provided associated turbine case cooling air valve is deactivated in the closed position.			
-24-01-01-02							
LPT Systems	С	2	0	 (M)(O) May be inoperative provided: a) Associated turbine case cooling air valve is deactivated in the closed position, and b) Appropriate performance adjustments are applied. 			
-24-01-02 GE							
-24-01-02-01 LPT Systems	С	2	0	(M)(O) May be inoperative provided: a) Associated LPT ACC valve is locked in the closed position, and b) Both EECs operate in the normal mode.			

U.S. DEPARTMENT OF TRANSPORTATION MASTER MINIMUM EQUIPMENT LIST										
FEDERAL AVIAT	ON			WASTERW		FIVILINI LISI				
AIRCRAFT:	BOEING B-7	777				REVISION NO: DATE: 05/31/2	19 013	PAGE: 75-2		
SYSTEM &	1.				2. NUMBER INSTALLED					
SEQUENCE	ITEM			3.	NUMBER REQUIRED FOR DISPATCH					
NUMBERS	BERS				4. R	4. REMARKS OR EXCEPTIONS				
75 BLEED AIR										
-24-02 Turbine Cooling Air Systems (PW)										
-24-02A		С	2	1	associa	e may be inoper ited Turbine Var air shutoff valve osition.	ne and Blade C			
-24-02B		С	2	0	Vane a	May be inoperated Blade Coolin are deactivated	g (TVBC) air sł	nutoff		

U.S. DE	EPARTMENT OF TRAN	SPOR	TATIO	N	MASTER MINIMUM EQUIPMENT LIST				
FEDER	AL AVIATION ADMINIS	TRAT	ON		W/OTER MINION EQUI MENT EIGT				
AIRCRAFT: BOEING B-777					REVISION NO: 18b PAGE:				
	BOLINO B-111				DATE: 06/13/2012 77-1				
SYSTE	M &	1.	2.	NUME	BER INSTALLED				
SEQUE	QUENCE			3. NUMBER REQUIRED FOR DISPATCH					
NUMBE	MBERS				4. REMARKS OR EXCEPTIONS				
77 ENG	GINE INDICATING								
-11-01	Engine Pressure Ratio Indicating Systems (PW and RR)								
-11-01-	01								
	PW	С	2	0	 (O) May be inoperative provided: a) Both engines must be operated in the alternate (ALTN) mode, and b) Appropriate performance adjustments are applied. 				
-11-01-02									
	RR	С	2	0	 (O) May be inoperative provided: a) N2 indication on affected engine operates normally, b) Both engines must be operated in the alternate (ALTN) mode, and c) Appropriate performance adjustments are applied. 				
-12-01	N2 Tachometer Systems (RR)	В	2	1	One may be inoperative provided EPR and Fuel Flow operate normally.				
-21-01	Pyrometer Exhaust Gas Temperature (EGT) Indication System (GE Except GE90-100 Series)	С	2	0	(M) May be inoperative provided: a) Inoperative EGT pyrometer indication system is deactivated, and b) Associated engine EGT indications are verified to be normal.				
-22-01	Engine Turbine Overheat Sensors (RR)	С	4	2	One per engine may be inoperative.				
-31-01	Engine Vibration Monitor Systems	С	2	1					

U.S. DEPARTMENT OF TRANSPO			N	MASTER MINIMUM EQUIPMENT LIST
FEDERAL AVIATION ADMINISTR	RATIC	ON		
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SYSTEM &	1.	2.	NUME	BER INSTALLED
SEQUENCE ITEM			3.	NUMBER REQUIRED FOR DISPATCH
NUMBERS				4. REMARKS OR EXCEPTIONS
78 ENGINE EXHAUST				
-31-01 Thrust Reversers				
-31-01-01				
-200/-200ER/-300 (C	2	1	 (M) One may be inoperative provided: a) Both sync locks are verified in the locked position, b) One locking actuator on each sleeve is verified in the locked position, and c) Inoperative reverser is secured in the forward thrust position.
-31-01-02				
-200LR/-300ER/777F (C	2	1	 (M)(O) One may be inoperative provided: a) Both sync locks are verified in the locked position, b) One locking actuator on each sleeve is verified in the locked position, c) Inoperative reverser is secured in the forward thrust position, and d) Appropriate performance adjustments are applied.
-34-01 Reverse Thrust Lever Interlocks				
-34-01-01				
-200/-200ER/-300	C	2	1	One may be inoperative released or retracted.
-34-01-02 -200LR/-300ER/777F				
-34-01-02A		2	1	One may be inoperative released.
-34-01-02B	C	2	1	(O) One may be inoperative retracted provided appropriate performance adjustments are applied.

U.S. DEPARTMENT (U.S. DEPARTMENT OF TRANSPORTATION								
			MASTER M	INIMUM EQUI	PMENT LIST				
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В				DATE 00/40/06					
					DATE: 06/13/20)12	78-2		
SYSTEM &	1.	2.	NUME	BER IN	STALLED				
SEQUENCE	TEM		3.	NUMBER REQUIRED FOR DISPATCH					
NUMBERS				4. REMARKS OR EXCEPTIONS					
78 ENGINE EXHAUST									
			ļ						
-36-01 Reverser Pro Sensors	eximity C	14	12	One p	per engine may be	inoperative.			
			l	l					

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	EPARTMENT OF TRANS			IN	MASTER MINIMUM EQUIPMENT LIST
	AL AVIATION ADMINIS	ΓRΑΤΙ	ION		
AIRCR	AFT: BOEING B-	777			REVISION NO: 18b PAGE:
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SYSTE	M &	1.	2.	NUME	BER INSTALLED
SEQUE NUMBE				3.	NUMBER REQUIRED FOR DISPATCH
NOMBE	- KS				4. REMARKS OR EXCEPTIONS
79 ENGINE OIL					
			Ì	!	
-21-01	Engine Air/Oil Heat Exchanger Valves	С	2	0	(M)(O) May be inoperative provided:a) Associated valve is locked in the open
	(RR)				position, and
					 Appropriate minimum fuel temperature is maintained during flight.
-21-02	Engine Fuel/Oil	С	2	0	May be inoperative in the closed position.
	Cooler Bypass Valves				· y · · · · · · · · · · · · · · · · · · · · · · ·
	(PW)				
-31-01	Engine Oil Quantity Indicating Systems	Α	2	1	(M) One may be inoperative provided:a) It is verified before each departure that
	indicating Systems				the oil tank is filled to the recommended
					capacity, b) Oil consumption is within limits, and
					c) Repairs are made within three flight
					days.
-35-01	Engine Oil Filter Bypass Warning				
	Systems				
-35-01-	01				
-33-01-	PW	С	2	1	(M) One may be inoperative provided
					associated master chip detector is checked for contaminants before each departure.
					contaminanto belore each departure.
-35-01-		С	2	4	
	GE	C	-	1	
-35-01-					
	RR	С	4	2	(M) One per engine may be inoperative provided:
					a) It is verified that the malfunction is in the
					alerting system, andb) Associated master chip detector is
					checked for contaminants before each departure.
					ueparture.

U.S. DEPARTMENT OF TRANSPORTATION										
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			1		DATE: 00/13/2012 80-1					
SYSTE	SYSTEM & 1.			2. NUMBER INSTALLED						
SEQUE	ITEM			3. NUMBER REQUIRED FOR DISPATCH						
NUMBE	RS				4. REMARKS OR EXCEPTIONS					
80 STA	DTING									
00 31A	IKTING									
			İ							
-11-01	Engine Start Valves	С	2	1	(M)(O) One may be inoperative closed provided					
					alternate starting procedures are established and used.					
					and used.					
-11-02	Autostart System	С	1	0	(O) May be inoperative provided manual start					
	,				procedures are established and used.					
-11-02-0		_								
	Autostart Switch Position Indication	С	1	0	May be inoperative provided engine autostart switch is selected ON.					
	FUSITION INDICATION				SWILLT IS SCIECTED OIV.					
-11-03	Start Selector	С	2	0	(O) May be inoperative provided alternate start					
	Holding/Cutout				procedures are used.					
	Systems									